

Failing Females or Equipping Them for Success?

Menstrual Hygiene Management: Examination of Interventions Strategies.

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Introduction

Blood can evoke different emotions: negative emotions such as disgust, fear, and contempt, or positive emotions such as strength, celebration, and honor. When blood is associated with a male, it often has a connotation of power and prestige signifying a victorious battle or the slaying of an animal. The opposite connotation exists regarding females, where a sign of blood signals shame and disgrace indicating uncleanness or defilement. In this paper, structural violence theory will provide the basis for elucidating specific social inequities between the genders and explain how the dynamics of blood can be a source of this disparity. Particularly in developing countries, gender social inequities are present in educational attainment, economic opportunity, and social status. Using Lusaka, Zambia, and its cultural gender studies as my focus, I argue that menstruation is a contributory problem for the social injustice females have endured, and because it often interferes with girls' and women's education, that menstruation has also created one of the economic disparities between genders there. Furthermore, I provide a case study and practical recommendations for addressing this injustice so that females can realize their educational and economic potentials.

Menstruation is a natural, reoccurring, biological process during which a woman bleeds vaginally for two to seven days from shedding her uterine lining, a process that signals her ability to conceive a child. However, the menstrual process of this same life-creating ability has also stripped females of the same basic rights of their male counterparts. Structural violence theory provides a basis for examining the inequality women face by considering one female, biological difference, menstruation. Cynthia Moe-Lobeda defines structural violence theory as evolving from a type of violence built into the social structure and that results in categorically unequal power and consequently unequal life chances, in this case, for females (73). The social

and economic disparity between genders has existed for thousands of years; however, up until recently, conversations about menstruation and its contribution to this disparity have remained private. Currently, investigations by governments and nongovernmental organizations are beginning to address the barriers menstruation has created in female's attainment of academic and economic success.

It would be inaccurate to correlate every existing inequity between the genders to menstruation. Because of menstruation, women encounter obstacles that perpetuate their cycle of poverty, and the following social characteristics of structural violence theory further preserve injustices between genders:

1. Ignorance - It is generally ignored by those who perpetuate it or benefit from it;
2. Systematicness - It is passed on from generation to generation;
3. Oppression - It consists of interlocking forms of oppression;
4. Perpetuation - It entails views, policies, and practices embedded in society and appears natural and normal (Moe-Lobeda 77).

I will cite examples in low-income countries to illustrate the context on which I base my claims and to show that the four structural violence characteristics are still operative.

Menstruation and Structural Violence Theory

The first characteristic of structural violence theory is ignorance, which stems from the perpetrators' lack of true awareness of the topic or its importance to social and economic growth. Typically, this "ignorance" has thrived because menstruation has a culturally taboo definition. For example, females have menstruated since the beginning of time, yet females in

low-income countries often lack adequate access to feminine hygiene products or facilities that hygienically allow them to manage menstruation, and there has been little conversation about that deficiency. Yet to compound the problem, their inability to manage menstruation away from home results in girls' school absenteeism. The World Bank estimates that girls miss between 10-20% of their education because of menstruation (Purvis and Zee). Statically, girls who miss school have lower academic performances, lower test scores, and a higher drop-out rate compared to that of their male peers. For example, in Zambia, the net attendance ratio for girls' primary school participation is 82% (2007-2011); these figures declines even more in regards to girls' overall secondary school attendance—only 41% of Zambian women aged 20-24 have attended secondary school or higher (SPLASH). When girls drop out of school, it restricts their economic opportunity and traps them in a cycle of poverty. This trend has been present in the academic settings for years; however, only recently have researchers correlated a girl's inability to manage menstruation to her declining academic performance.

Moral oblivion is a phrase that often covers educators' ignorance or lack of awareness of this trend, one that has affected half of the student population and perpetuated male social privilege. Moral oblivion occurs when values, ideas, practices, symbols, social trends, norms, emotions, presuppositions, or other influences prevent us from viewing the world through critical vision, seeing things as they truly are and not how we "believe" them to be (Moe-Lobeda 90). Cultural norms have significantly influenced girls' academic opportunities in low-income countries. Educators, consciously or unconsciously, have preserved "the way things were" even when it marginalized half of the population by not having earlier recognized and addressed this trend.

The second characteristic is a systemic cycle of tradition, perpetuated by a lack of knowledge transfer. Menstruation is a culturally taboo topic in predominantly low-income countries; people simply do not talk about it, and this silence about it is passed down through generations. During my field research in Zambia, every female guardian stated it was not acceptable for girls to talk to them about menstruation. A grandmother told me that she expected her granddaughter to learn about menstruation in school. She explained that throughout her family history, it has been a custom for mothers and daughters not to discuss menstruation (Zulue). Girls' inability to discuss menstruation with female family members or even with male relatives has directly influenced their overall wellbeing. This fact is a systemic concern for women in low-income countries where men traditionally hold social positions of power and create governing policies. A culture in which menstruation is taboo silences women, disregards their educational rights, and thereby perpetuates a cycle of poverty that they will pass on to the next generation of females.

This situation relates to more than the transfer of basic knowledge about menstruation; it also reinforces negative psychosocial patterns of behavior. For example, being unprepared for menarche (the onset of menstruation), being excluded and shamed during monthly periods, being hindered in self-care and uncared for when unwell, undermines a girl's sense of overseeing her life, her sense of self-worth, and her sense that the individuals and institutions around her are responsive to her needs (Chandra-Mouli & Patel 13). A lack of physical and emotional support damages girls' self-esteem and creates their economic dependency on the same social system that has created the damage in the first place, thus creating the third characteristic— an interlocking form of oppression.

This damaging oppression in low-income countries stems from a lack of human and social services that have failed to provide females with adequate menstrual hygiene management amenities. Basic menstrual hygiene management (MHM) services should consist of the following: 1) adequate sanitation facilities with access to clean water and soap at school; 2) accessibility to feminine hygiene products; 3) improved education about menstruation for girls, teachers, parents, and policy makers (Parker, Smith and Verdemato). The ability for schools to provide these basic services to girls depends on funding from the government or from non-governmental organizations (NGOs). The funding for implementing current intervention strategies in low-income countries comes from NGOs that have publicly declared MHM as a human right violation, and hold low-income countries accountable for changing policies and practices deeply embedded in their culture (Sommer, Hirsch and Nathanson). Linking a lack of adequate MHM to human rights violations has strengthened the attention and actions of low-income countries to MHM itself.

The fourth characteristic is the perpetuation of existing views, policies, and practices. Moral oblivion may partly explain why governments in low-income countries have overlooked systemic problems that directly affect the economy and half of their citizens. Traditionally, men have held positions of power and have established many of the policies, practices, and cultural beliefs still in effect today. This tradition has created a gender inequity deeply embedded in social structures and cultural practices. As a result, in low-income countries, menarche prompts boys and adults to target girls as ripe for sexual activity, including marriage (Mason, Nyothach and Alexander). Girls can start menarche as early as twelve years of age, catapulting them into adulthood at a young age and terminating their ability to complete their education. This termination hinders the development of the girls' education and, thus, deprives their countries of

the girls' economic potential. Ironically, today, gender educational equity is heralded as the cornerstone for social and economic development (Kuhlmann, Henry and Wall). For this reason, it figures prominently in the Sustainable Development Goals.

The United Nations Sustainable Development Goals (SDGs) were established to address and rectify social injustices that affect marginalized individuals, in this case, menstruating females. By design, the SDGs mitigate problems of structural violence against females. Five of its seventeen goals address social injustices against females such as overall health and wellbeing, social/political exclusion, and lack of necessary education to help them fulfill their employment opportunities and live more purposeful lives:

Goal 1: End poverty in all its forms everywhere - Its manifestations include hunger and malnutrition, limited access to education and other basic services, **social discrimination and exclusion** as well as the lack of participation in decision-making. Economic growth must be inclusive to provide sustainable jobs and promote equality.

Goal 3: Ensure healthy lives and promote **well-being for all at all ages** - Major progress has been made on increasing access to clean water and sanitation, reducing malaria, tuberculosis, polio, and the spread of HIV/AIDS.

Goal 4: **Ensure inclusive and quality education for all** and promote lifelong learning - Obtaining a quality education is the foundation to improving people's lives and sustainable development. Major progress has been made towards increasing access to education at all levels and increasing enrollment rates in schools particularly for women and girls.

Goal 5: Achieve gender equality and empower all women and girls - Providing women and girls with equal access to education, health care, decent work, and representation in political and economic decision-making processes will fuel sustainable economies and benefit societies and humanity at large.

Goal 10: Reduce inequality within and among countries - To reduce inequality, policies should be universal in principle paying attention to the needs of disadvantaged and marginalized populations (United Nations/Sustainable Development Goals).

The field for improvement is wide and deep in all areas; however, the specific social impacts of menstruation for females are educational, economic, and cultural. Effective MHM intervention strategies, supported by infrastructure and services, must target each of these areas. The global conversations about MHM have demystified the moral oblivion to menstruation and its different impacts in low-income countries. And the structural violence theory has identified the economic inequity and poverty moral oblivion creates, particularly for women (Moe-Lobeda, 71). This growth of information provides the context that helps identify problems and adopt governmental MHM intervention strategies to help women in low-income countries.

Dismantling the structural violence that females experience because of menstruation is no small undertaking. Seeking justice for them and altering ingrained, cultural beliefs feels unsurmountable (Clawson). Menstruation has caused females to endure inequitable education obtainment, loss of economic opportunity, and lower social status; these effects should warrant outrage and action. Governments, in particular, can no longer rely on moral oblivion as an excuse to perpetuate structural violence towards female citizens. It should be impossible to

ignore the SDGs which have placed a global spotlight on areas of female social injustices and inequity.

My assessment is that menstruation, a natural, biological process, has ironically contributed greatly to the structural violence females' encounter. That each structural violence characteristic links to menstruation provides the basis for the further discussion about menstruation's impact on females' lowered socioeconomic status. The contradictory views of blood perhaps began the resulting gender and social imbalance. The gender inequity, perpetuated by prevailing social structures, continues to limit females' educational and economic opportunities

Socioeconomic Status

When MHM is not accessible to females, it creates an inequity in education that impacts future income earning and economic status. Every additional year of primary school boosts girls' eventual wages by 10 – 20% and an extra year of secondary school by 15 – 25% (Senanayake). Wider social and national economies can profit from MHM interventions that allow girls to remain in school. With every 1% increase in the proportion of women with secondary education, a country's annual per capita income grows by 0.3% (Preiss and Perczynska).

Economic development has used microfinance for poverty alleviation and gender empowerment; however, one of the best way to alleviate poverty is to allow girls to stay in school longer. Many of the microcredit loans taken out are not for grass root businesses but for necessities (Roy 359). The target segment for these loans are often poor women who lack education. For women and girls, increased education has been associated with benefits including health for women and their children, literacy, delayed sexual debut and marriage, self-efficacy,

improvements in labor force participation, and involvement in household decision making (Montgomery et.al). A lack of necessary hygiene supplies has contributed to this lack of education and its many compounding concerns.

When girls' lack feminine hygiene products during menstruation, they stay home from school to avoid embarrassment and bullying by peers. It is worth stating again that the World Bank has estimated that a girl may miss between 10-20% of her education because of menstruation (Purvis and Zee). A lack of access to MHM and its effects on girls' education has gained support via the attention of INGOs such as the Gates Foundation, UNICEF, and ZanaAfrica. This awareness has resulted in UNICEF's supporting low-income countries such as Kenya with creating guidelines for menstrual hygiene in schools, including proper hand washing facilities and places to dispose of sanitary products (Higgins). INGOs reveal social injustices on a global platform, forcing government accountability for providing citizens certain human rights such as gender equality.

In a developmental context, many state and non-governmental agencies equate the importance of education to economic growth. Education is a fundamental strategy in development planning because, universally, it has shown to be a key driver toward increasing individual well-being and economic status. Consequently, MHM is being addressed in schools through Water, Sanitation, and Hygiene (WASH) programs because without access to latrines, clean water, and feminine hygiene products, girls do not attend school during menstruation. The SDGs have shifted this global concept of education to focus on educating and socializing all children for the growth of the nation's future welfare.

Females in low-income countries will continue experiencing lower socioeconomic status if MHM fails to warrant public discourse. The topic is multifaceted in that females lack feminine hygiene products yet are stigmatized by cultural attitudes regarding them as unclean. For change to occur, the wider community must be involved to address cultural taboos about menstruation (Egunyu). Discussions about MHM face the same challenges as practices such as child marriage or female genital cutting (FGC), because even the women in the community practice cultural traditions and perpetuate menstrual restrictions (Preiss and Perczynska). Approaching MHM from a health perspective, as was done with FGC, could yield results in access to products but not necessarily for a change in beliefs and attitudes towards menstruation. MHM, however, presented as a human rights topic, is covered by the Convention for the Elimination of All Forms of Discrimination against Women (CEDAW) that affirms fundamental human rights and respect for human dignity (Boyle 323).

Three INGOs leading reform in the MHM arena are UNICEF, the Bill and Melinda Gates Foundation, and SNV. First, UNICEF has a mission to advocate for children's rights, to help meet their basic needs, and to expand their opportunities to reach their full potential. UNICEF uses its country programs to promote equal rights for women and girls and to support their full participation in the political, social, and economic development of communities (UNICEF). UNICEF continues to provide direct support to MHM programming in schools and communities, guiding standards and policy development, education campaigns, and research (UNICEF). UNICEF leads all INGOs in MHM intervention strategies and it had begun studying the effects of MHM on the lives of girls and women prior to other INGOs' participation.

The Bill and Melinda Gates Foundation's mission statement is that all lives have equal value, and the Gates are impatient optimists working to reduce inequity (Gates Foundation). The

Gates Foundation provides grants to NGOs such as ZanaAfrica to expand the global evidence base surrounding the role of menstrual health-focused interventions in gender parity, health, and development. The Gates Foundation has chosen to focus its attention on WASH programming by developing innovative approaches and technologies that can lead to radical and sustainable improvements in sanitation in the developing world (Gates Foundation). The foundation financially supports increasing awareness and expanding intervention solutions currently used by INGOs in low-income countries.

SNV's mission is to make a lasting difference in the lives of millions of people living in poverty. SNV shares its expertise in WASH to find local solutions to global challenges (SNV.org). It has numerous projects that engage girls in a MHM solution for their community. A pilot project, "Girls in Control," works to break down taboos around menstruation and ensure that menstrual health resources are available, creating a world where every woman and girl can manage her menstruation in a hygienic way – in privacy, safety, and with dignity (SNV.org). Whereas UNICEF focuses on WASH in the educational setting, SNV has a model that engages the girls and community to discuss sustainable solutions for addressing cultural barriers.

MHM interventions are part of a complex socioeconomic puzzle whose impact has had far reaching effects. The solutions are rooted in changing cultural perceptions; merely providing feminine hygiene products to girls is not enough. Long term interventions will involve engaging INGOs, NGOs, community members, and local government to equate a disparity in MHM interventions as a human rights and gender equality situation. Only then will we see more INGOs tailoring WASH and other programs to address MHM within development models.

Menstrual Hygiene Management Interventions

Menstrual hygiene management (MHM) is the ability of females to manage menstruation in a safe, clean, and hygienic manner. MHM is broadly categorized into two groups: *hardware interventions*, designed to address material deprivations such as absorbents and access to WASH facilities; and *software interventions*, which use education to address deficits in knowledge, behaviors, and social norms of menstruation and management (Hennegan and Montgomery 2). The foci of current intervention strategies have addressed the broad categories, which has resulted in circumventing some of the problems that prevent girls from attending school. However, these strategies do not address all of the impacts of menstruation that hinder girls' academic achievement. The two current intervention categories oversimplify the complexities of the more multifaceted interventions needed to address this problem holistically.

MHM hardware interventions begin by addressing access to facilities in school. These include a separate latrine for girls with a locking door for privacy, access to water and soap to wash themselves and soiled articles, and an incinerator to destroy disposable absorbents. Globally, females have developed their own methods for managing menstruation, all of which depend on personal preference, available resources, economic status, local traditions, and cultural beliefs (Sumpter and Torondel 1). In low-income countries, these methods are often unhygienic and inconvenient. A 2013 study revealed that girls have used grass or leaves plucked from the ground around the schoolyard, but most use old clothing, blankets, or pieces of (bedding) mattress (Mason, Nyothach and Alexander).

All women and girls, regardless of economic status, deserve access to feminine hygiene products that allow them to manage their periods safely, without shame or embarrassment. This help includes access to disposable or reusable sanitary pads, tampons, or menstrual cups.

Providing necessary sanitary products to girls gives them the comfort to know they have the supplies needed to manage their periods when they are at school. Both hardware interventions are necessary, as revealed in a study. Even if girls had access to pads, 43% of the girls would not attend school if they felt they did not have enough privacy to manage menstruation there (Sumpter and Torondel 11). This complexity highlights the need for multifaceted interventions necessary to decrease feelings of fear and anxiety that can prevent girls from attending school and achieving academic success.

Software interventions use education to address deficits in knowledge of menstruation and management. This MHM intervention strategy involves community education about menstruation and includes students, teachers, parents, and policy makers. Education is an essential intervention because adoption of subsequent interventions depends on changing those cultural attitudes and beliefs that suppress females and treat menstruation as a curse. This shift in mindset is necessary not only for the males in the community, but also for females who need to understand menstruation as a natural, biological process which can then help them gain increased self-esteem and eventually encourage them to advocate on their own behalf against social injustices.

As females become empowered to discuss menstruation openly in public, a spotlight will shine on the existing, inequitable policies. One of these policies is the tampon tax or value added tax (VAT) that deems feminine hygiene products ineligible for tax exemption. Statistically, women earn less than men. They then have the additional financial burden of purchasing feminine hygiene supplies each month. The fact that feminine hygiene products are subject to VAT illustrates moral oblivion by men who enacted the law and who continue to uphold it even though it perpetuates social injustice. The current MHM interventions are short sighted in that

they address only the immediate needs of school aged girls and fail to address all areas that affect a female's socioeconomic status.

Case Study: Sew Powerful

Sew Powerful was created in 2010 as a nonprofit organization registered in Auburn, Washington. The mission of the organization is “combating extreme poverty in Lusaka, Zambia, through the raising up of seamstresses in local and global communities” (Sew Powerful). Seamstresses in the cooperative are employed to make purposeful products such as school uniforms and reusable feminine hygiene pads, and to participate in manufacturing soap to generate income for the cooperative. The “purposeful products” manufactured by the cooperative drive the Sew Powerful theory of change by addressing basic health and hygiene needs for girls in hopes to enable their academic achievement while also creating sustainable financial security for females in the community.

The Sew Powerful theory of change combats extreme poverty via creating sewing cooperatives, providing jobs for women, and manufacturing purposeful products that create sustainable economic opportunities and other benefits for the community. The Sew Powerful holistic model addresses the socioeconomic conditions in Lusaka by focusing on school-aged girls and unemployed women in the community. By the year 2020, Sew Powerful aspires to employ twenty seamstresses in the cooperative, supplying over 10,000 girls in over thirty schools in Lusaka with reusable feminine hygiene products (Sew Powerful).

The outcome map (Appendix 1, Figure 1) for the Sew Powerful Purse Program (SPPP) combines conceptual models such as the theory of change, a logic model, and a “so that” chain. To combat poverty in Lusaka, Sew Powerful first identified the contributory factors for residents.

A logic model (Appendix 1, Figure 2) provided the inputs and outputs for the SPPP program design. Continuity in the program from the outcomes and impact were achieved through a “so that” chain.

The contributory factors cover a range of problems including poor economic opportunities, a lack of education obtainment, poor health factors, and a lack of self-worth or value. These problems are interconnecting; therefore, to combat the extreme poverty in the community, it is necessary to address each factor. Economically, there is a shortage of employment opportunities for Zambian women, and their lack of education and employment skills further exasperates this situation. The result is that families in the community have low household income which, in turn, also contributes to Lusaka’s educational and health problems.

The educational system experiences high rates of absenteeism, particularly with female students, which ultimately leads to a high drop-out rate. One of the major factors contributing to the high absenteeism and drop-out rate is that girls cannot afford feminine hygiene products and, consequently, do not attend classes when menstruating. Additionally, when girls do not receive adequate knowledge about hygiene practices, their health is affected. The long-term impact contributes to the rising number of early pregnancies and marriages for these girls. In culmination with the problems listed above, girls who drop out of school also suffer poor self-worth. Currently, the community does not have the financial means to provide menstrual hygiene management education and skills-based training programs.

The assumption behind the inputs rely on Sew Powerful resources such as the sewing cooperative that employs women in the community, provides a skills-based training program, and produces feminine hygiene products for girls. In culmination, each of these resources addresses the four factors contributing to Lusaka’s poverty.

The “so that” chain qualified the assumptions made in the outcome map and validated the logic flow of the model. For example, to tackle Lusaka’s economic problems—a lack of employment opportunities and low household income due to lack of education and skills (contributory problems)—Sew Powerful will need to provide sewing cooperative and skills based trainings (input); *so that* the organization can employ cooperative seamstresses (output); *so that* there will be an increase in household income, increased financial ability to afford basic necessities, and increased employability in the lives of Zambian women (outcomes); *so that* there will be financial independence for women in their community (impact); *so that* extreme poverty is combatted in Lusaka, Zambia (vision).

The identification of each of these problems has shaped the Sew Powerful Purse Program (SPPP). The SPPP enlists volunteers from around the globe to create and donate cross body purses. Participants send these purses to the Sew Powerful headquarter in Washington which ships them to Lusaka, Zambia, through a partnership with World Vision. Reusable feminine hygiene pads (includes two shields and eight liners), created by the sewing cooperative in Zambia are placed in the purses along with two pairs of underwear and a bar of soap (Miles and Miles 87). Each purse also features a note of encouragement from the seamstress who donated the purse to the girl who will receive it. Sew Powerful distributes the completed purses free to school age girls in the Ngombe compound, on the outskirts of Lusaka, Zambia. The SPPP provides each girl with two purses: one for the girl and one for a family member. This process helps prevent the theft of the girl’s purse by the family or community members. The purses are distributed through schools, as they are the most effective means of reaching the majority of girls in the community.

The Sew Powerful Zambia Program Director is Esther M'kandawire. Esther oversees the distribution of the SPPP and provides educational training to girls (ages 13-20) about the items in the purse. The training consists of explaining the biology of menstruation, care and instructions for using the reusable pads, and a lesson on sexual education that includes a conversation about abstinence. Having grown up in the community, Esther is aware of the cultural sensitivity regarding menstruation. She has been instrumental in addressing cultural taboos associated with menstruation, particularly with community male leaders and educators.

In 2017, the SPPP added a staff peer-mentor whose role is to address topics and situations that the students may be uncomfortable discussing with an adult. This staff member is someone who has graduated from secondary school and whom the girls see as a big sister. She also co-develops the curriculum with the girls, allowing them to recommend topics for future conversations. The peer-mentor does research and facilitates group conversations in which a group of fifteen to twenty girls addresses topics such as peer pressure and child abuse (Tinus). Sew Powerful plans to hire an additional mentor and to roll out the mentorship program at all the schools that receive purses.

The SPPP is comprehensive in addressing multiple contributory problems females encounter. The limitation of the program is that it depends on funding from the United States to employ the seamstresses in the sewing cooperative and to purchase the supplies to make the reusable feminine hygiene pads. Sustainability of the SPPP will involve increasing the cooperative's funding capability. The SPPP is a comprehensive model for MHM interventions and by incorporating the proposed sustainability model (Appendix 2), it provides the resources and community empowerment to accomplish transformational change.

Menstrual Hygiene Management Sustainability Model

Sew Powerful currently operates as a nonprofit, but the purposeful products created by the cooperative provides the opportunity for the organization to operate as a social enterprise. The cooperative seamstresses make the purposeful products, such as school uniforms, reusable feminine hygiene pads, and manufacture soap to generate income. The aspiration of Sew Powerful is to remove its current structure as a top-down charity, a structure historically proven unsuccessful at alleviating poverty in developing countries (Lupton 93). The business plan (Appendix 2) outlines the expansion of the Sew Powerful cooperative through hiring sales representatives focused on marketing and selling the “purposeful products” manufactured in Lusaka. Sales representatives are a vital element in Sew Powerful’s sustainability and its operating as a social enterprise.

Social entrepreneurship uses business principles to create sustainable social change. Businesses have a well-established matrix by which to measure success (profit and loss statements), but measuring long-term social change is more challenging and does not fit the business paradigm way of thinking. The formative evaluation methodology (Appendix 1) provides a qualitative system for evaluating behavioral change. Its combination of financial and social objectives is coined “blended value.”

Social entrepreneurs use business plans with revenue projections; however, they must go one step farther by incorporating a theory of change and an analysis of how an idea will spread, achieve impact, and influence others (Bornstein and Davis 50). Combining the information from a business plan into a theory of change (Appendix 1, Figure 1) provides a holistic, organizational picture because it measures both outcomes and impacts.

Sew Powerful has a 2020 strategy that addresses the contributory elements of poverty, as previously mentioned. The focus on employing women in the sewing cooperative creates a ripple effect in the community that will provide secondary benefits because of the women's traditional use of funds. Although women often earn smaller, more regular streams of income that meets day-to-day expenditures, they also use their income to support their children's nutrition, health, and education (Kellison). Employing women through the sewing cooperative makes an investment that extends beyond the employee to her children and family.

A secondary impact of this model is that every girl's uniform will include a Sew Powerful Purse, allowing girls to stay in school during menstruation. The most consistent global predictor of the well-being of a society is women's educational attainment (Bornstein and Davis 67). The primary objective will be to empower the seamstresses through economic opportunity that allows them to provide a better life for their families. The plan will identify measurements such as the Progress out of Poverty Index (PPI); otherwise, because Zambians usually work multiple jobs, it would be challenging to determine if economic opportunity has occurred. Consequently, Sew Powerful will need to consider alternative measurements of success such as hybrid insights. Hybrid insights allow qualitative data (personal stories) embedded in quantitative data, bringing the data to life (Kelley and Kelley 89).

Sew Powerful has built an existing model of a sewing cooperative that produces purposeful products for sale and donation. Sew Powerful hopes each cooperative will become self-sustaining through identifying a market and selling the purposeful products. The expansion program will provide sales representatives who will help the seamstresses to begin selling their products at a higher volume to generate income to covers their operational costs. In the US, Sew Powerful will continue to undergird the operational costs to allow the seamstresses to market

their products at a slightly reduced price that is congruent with the economics of the community. By solidifying business principles, the organization can transition from the traditional model of nonprofit charity to functioning as a social enterprise. This business model aligns with its theory of change for combating extreme poverty in Lusaka, Zambia, through its sewing cooperative.

Conclusion

The poverty that low-income countries face is multifaceted, and social injustices that affect marginalized individuals, females in particular, perpetuates low socioeconomic status. In the beginning of this paper, I equated cultural, gender disparity to the visceral thoughts surrounding blood. It is my belief that menstrual blood, natural for females, is one contributory factor that has led to the inequities females encounter, and which decreases their educational opportunity and economic potential. Structural violence theory has provided an outline to address the obstacles that females encounter because of menstruation. It is an essential theory as it identifies that the lack of menstrual hygiene management interventions creates universal barriers to education for females. When girls are unable to complete secondary education, it perpetuates their low-income employment potential that can interlock them and their families in a cycle of poverty.

Sew Powerful is addressing menstrual hygiene management interventions while addressing the root cause of poverty and lack of employment opportunities in Zambia, a low-income country. The Sew Powerful Purse Program addresses contributory poverty concerns that affect the community. To alleviate this poverty, Sew Powerful helps create financial independence for women in the community, increases educational opportunity, and empowers females' personal development. The model co-powers females to change the trajectory of the

lives of all females in the community. By so doing, the Sew Powerful model can ensure continual growth if it can establish a market that generates community income.

The empowerment of females has various points of entry, all important in eliminating long held, cultural beliefs deeply embedded in societal structures. Gender equality will involve addressing topics where ignorance has remained, where cultural traditions have created systemic effects on future generations, where oppression can trap females in a lower socioeconomic status, and where policies and practices have often perpetuated gender inequality and injustice. Only after low-income countries address these areas will they be able to achieve social equity, and the resulting growth in gender equality will be evident in educational attainment, economic opportunity, and social status.

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Appendix 1: Sew Powerful Formative Evaluation



Formative Evaluation of the Sew Powerful Purse Program (SPPP)

Performed by: Rachelle Coverson

Report date: 02/17/18

Executive Summary

The formative evaluation was for the Sew Powerful Purse Program (SPPP) in the Ngombe compound outside Lusaka, Zambia. The SPPP provides girls in grades 5-7 with a purse that includes reusable feminine hygiene pads, underwear, soap, and a note of encouragement. Each girl receives two purses: one for her to use and one to give away. A Sew Powerful sewing cooperative in Ngombe, funded through donors in the United States, creates the feminine hygiene pads. The program's mission is to combat extreme poverty in Lusaka, Zambia, through sewing cooperatives that become profitable.

Sew Powerful addresses its mission by focusing on two stakeholders in the community—the women and girls. The sewing cooperative is employed to make purposeful products that consist of school uniforms and reusable feminine hygiene pads, and to manufacture soap to generate income for the cooperative (Sew Powerful). The purses are distributed to girls to enable them to attend school when they are menstruating.

The goal is to create more opportunities for female employment in Ngombe. Sew Powerful offers sewing classes to women in the community, thereby increasing employable skills that women can use to increase their own livelihood as well as the financial wellbeing of their communities. The benefit to girls is a Menstrual Hygiene Management (MHM) program leading to a decrease in their school absenteeism, a common cause of girls falling behind in their studies. If they fall behind, girls often fail their 7th grade exam and cannot go on to secondary school. Girls who do not continue on to secondary education are more likely to experience early childhood marriages, pregnancy, and contract sexually transmitted diseases such as HIV/AIDS.

Narrative

In the Ngombe compound, an urban slum outside Lusaka, Zambia, fourteen-year old Nelly should be in school with her peers; instead, she is at home. Nelly loves learning and wants to be a nurse when she grows up, but each month she misses three to five days of school, which causes her to fall farther and farther behind. Her seventh-grade exams are approaching. If she does not pass them, her dreams of becoming a nurse will be over, and she will likely follow in the footsteps of her mother by getting married early, having children, and perhaps working as a maid (Nelly).

Nelly's reason for missing school is that she is menstruating. Every month she experiences psychological emotions such as anxiety, fear, embarrassment, isolation, and sadness, and she endures physical symptoms such as fatigue, headaches, muscle aches, and cramps. Additionally, cultural beliefs about menstruation prevent Nelly from eating with boys and from partaking in certain activities such as cooking. Nelly must also overcome environmental factors such as a lack of clean water, soap, and a private area where she can properly wash and sanitize her feminine hygiene pads in the sunlight to destroy harmful germs and bacteria.

Nelly's experiences are common for girls in Zambia and for girls living in the low-income countries. Girls experience anxiety about whether their handmade sanitary pads, constructed from the fabric of old clothing or blankets, will leak and soil their school uniforms. They worry about cleaning themselves at school since there is not always a separate latrine for girls, or a latrine with a locking door to prevent other students from entering. They fear participating in class as it could require going to front of the class room, resulting in humiliation and torment from classmates should they have blood on their uniforms. Girls risk suffering those experiences if they are able even to make it to school in the first place. Often, the physical

ailments such as cramps prevent girls from attending school. At the same time, education is the catalyst to a better life for children in the developing world, but a natural, biological process, menstruation, hinders girls' ability to attend school and jeopardizes their academic success.

Introduction

Menstruation is a biological process that occurs in females during their reproductive years (ages 12-49), signifying a physiological progression from puberty to adolescence. Menstrual hygiene management (MHM) is the ability of females to manage menstruation in a safe, clean, and hygienic manner. The World Bank estimates that girls miss between 10-20% of their education because of menstruation (Purvis and van der Zee). This leads to girls falling behind in school, resulting in their being unable to continue on to secondary education. This crucial misstep increases their chances of early marriage, pregnancy, and exposure to HIV or AIDs, thrusting them into the cycle of poverty at an early age. Sew Powerful was created to address the problems that perpetuate the resulting cycle of poverty for girls in Zambia.

Sew Powerful was created in 2010 as a nonprofit organization registered in Auburn, Washington. The mission of the organization is “combating extreme poverty in Lusaka, Zambia, through the raising up of sewing cooperatives” (Sew Powerful). Seamstresses in the cooperative are employed to make purposeful products such as school uniforms and reusable feminine hygiene pads, and to participate in manufacturing soap to generate income for the cooperative (Sew Powerful). The “purposeful products” manufactured by the cooperative drive the Sew Powerful theory of change by addressing basic health and hygiene concerns for girls that enable their academic achievement while creating sustainable financial security for females in the community.

Background

The Sew Powerful story began in 2009 following a trip to Lusaka, Zambia, by CEO and cofounder, Jason Miles. During this trip, Jason visited the Needs Care School (NCS) in the Ngombe compound in Lusaka, Zambia, the poorest urban slum in the country. The head mistress of NCS, Esther M'kandawire, operated this school in an empty church building under construction. Esther had dedicated NCS to provide education to orphaned children in the Ngombe compound. Jason was tremendously impressed during the visit and dedicated himself to do all he could to support the school through personal, financial donations.

In 2010, in partnership with his wife and cofounder Cinnamon Miles, Jason created Sew Powerful and registered it as a nonprofit organization, headquartered in Auburn, Washington. The sewing cooperative's first purposeful products were school uniforms for the NCS students. In 2014, Sew Powerful launched the Sew Powerful Purse Program (SPPP) and provided its second purposeful product: reusable feminine hygiene pads placed inside a cross body purse that is donated by seamstresses from around the world. The SPPP addressed two needs in the community: a lack of access to sanitary items for school-age girls and a shortage of job opportunities for women in the community.

Half of the people living in Ngombe are under the age of fifteen because many of the adults have died from AIDS, tuberculosis, or malaria. The United Nations estimates that 13% of the Zambian population has HIV, and that percentage increases substantially among 15-49 year-old residents, especially in an urban slum like Ngombe (Miles and Miles 20). Given the health concerns and lack of jobs, poverty in Ngombe is overwhelming. It is, therefore, unlikely that families can afford to purchase feminine hygiene products for the girls in the household. This situation in Ngombe is congruent to that of most towns in Southern Africa.

The deficiency in financial resources is a contributing factor in the systemic lack of education and poor health problems in Lusaka. The educational system experiences high rates of absenteeism, particularly with female students, which ultimately leads to a high drop-out rate. One of the major factors contributing to the high absenteeism and drop-out rate is because low household income prevents girls from purchasing necessary feminine hygiene products that would allow them to stay in school during menstruation. Additionally, when girls do not receive adequate knowledge about hygiene practices, their health is affected. The long-term impact is that it contributes to the rising number of early childhood pregnancies and marriages for girls in the community.

Theory of Change - Program Goals and Objectives

Sew Powerful's theory of change is combating extreme poverty through creating sewing cooperatives, providing jobs for women, and manufacturing purposeful products that create sustainable economic opportunities and other benefits for the community. The Sew Powerful holistic model addresses the socioeconomic conditions in Lusaka by seeking to help school-aged girls and unemployed women in the community. By the year 2020, Sew Powerful aspires to employ twenty seamstresses in the cooperative, supplying over 10,000 girls in over thirty Lusaka schools with reusable feminine hygiene products (Sew Powerful).

The outcome map (Figure 1) for the Sew Powerful Purse Program uses a combination of conceptual models such as the theory of change, a logic model, and a "so that" chain. The Sew Powerful mission is to "combat extreme poverty in Lusaka, Zambia, through the raising up of seamstresses in local and global communities." At its core, it identifies the contributory problems that Ngombe residents face, it connects the difficulties to the inputs and outputs of the program

from the logic model (Figure 2), and finally, it uses the “so that” chain to continue the logical flows in determining the outcomes and impact of the program.

The contributory factors cover a range of problems in Lusaka, including economic, educational, health, and personal ones. Because these problems are interconnected, it is necessary to address all of them to combat Lusaka’s extreme poverty. Economically, there is a shortage of employment opportunities for Zambian women and a lack of education and employment skills that further exacerbates this situation. The result is that families in the community have low household income. The deficiency in financial resources further contributes to Lusaka’s educational and health problems.

As identified earlier, the educational system experiences high rates of absenteeism, particularly with female students, which ultimately leads to a high drop-out rate. A major contributing factor to girls’ absenteeism is the fact of menstruation and its complications, including access to facilities and products. This situation is particularly problematic because the community does not have the financial means to help the girls, nor to provide training programs in the form of literacy, life skills, spirituality, and health education. The identification of each of these problems has shaped the SPPP program’s inputs.

The assumption behind the inputs rely on Sew Powerful resources such as the sewing cooperative that employs women in the community, provides a skills-based training program, and produces feminine hygiene products for girls. Each of these resources, in culmination, addresses the four factors contributing to Lusaka’s poverty. The four stakeholders affected by the Sew Powerful Purse Program model are women, girls, the community (which is listed as services), and global participants.

Sew Powerful has the staffing, funding, and resources in place to support the inputs; however, to achieve the output goals, the organization will need to employ eleven additional seamstresses, distribute 10,800 completed purses with feminine hygiene products, produce 3,000 re-usable feminine hygiene products, sell 2,200 school uniforms, and receive 8,000 donated purses. These financial assumptions are based on available funding in 2017-2018, not based on the 2020 strategy. Achieving the output goals will support the successful, desired outcomes and impact goals.

The “so that” chain qualified the assumptions made in the outcome map and validated the logic flow of the model which begins with the contributory problems, works upward, and ends with the impact goals. For example, to tackle Lusaka’s economic problems—a lack of employment opportunities and low household income, due to lack of education and job skills (contributory problems)—Sew Powerful must provide sewing cooperative and skills based trainings, as well as weekly cooperative meetings (input); *so that* the organization can employ cooperative seamstresses (output); *so that* there will be an increase in household income, increased financial ability to afford basic necessities, and increased employability in the lives of Zambian women (outcomes); *so that* there will be financial independence for women in their community (impact); *so that* the mission can combat extreme poverty in Lusaka, Zambia (vision).

Figure 1: Sew Powerful Outcome Map

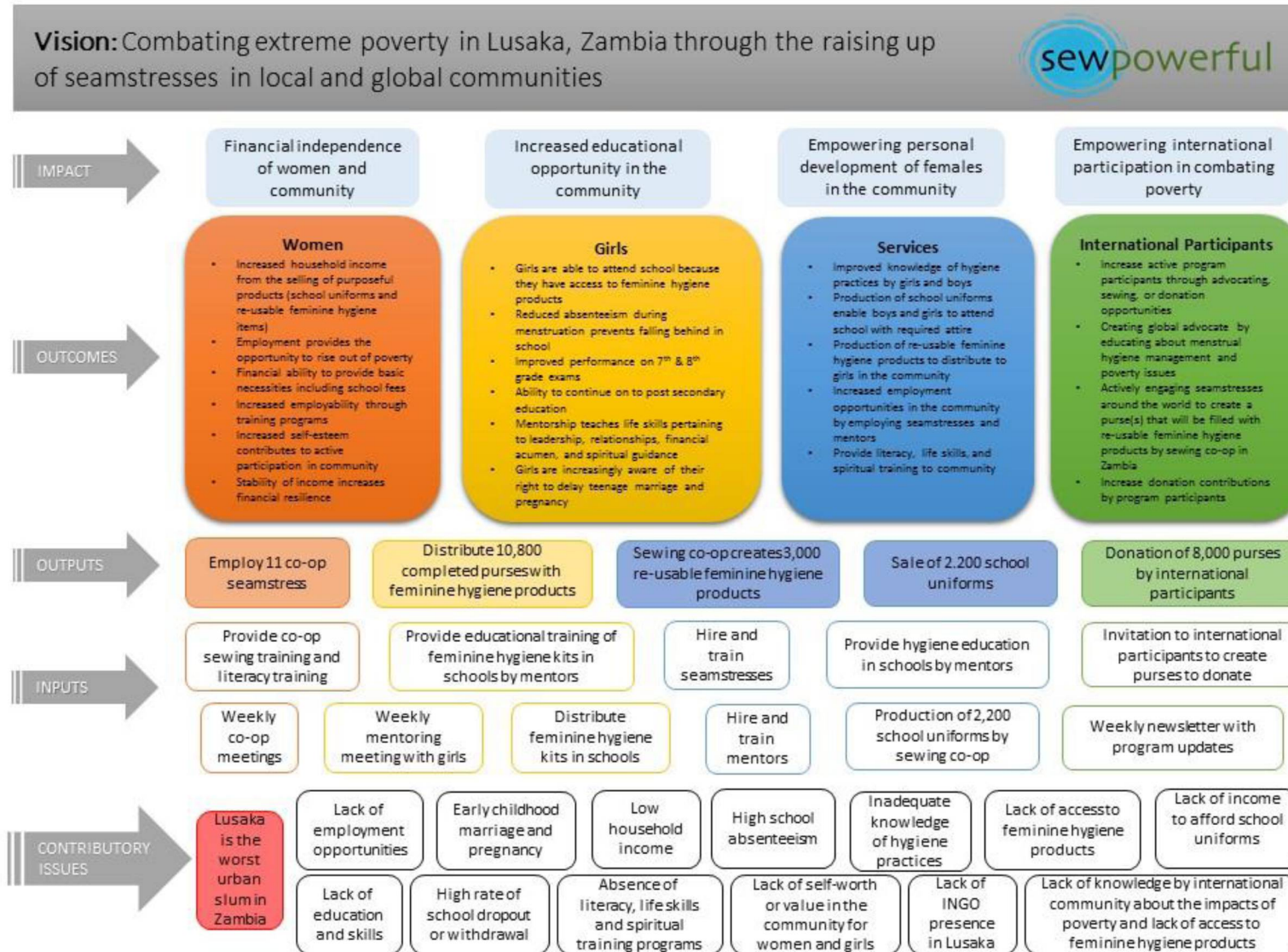
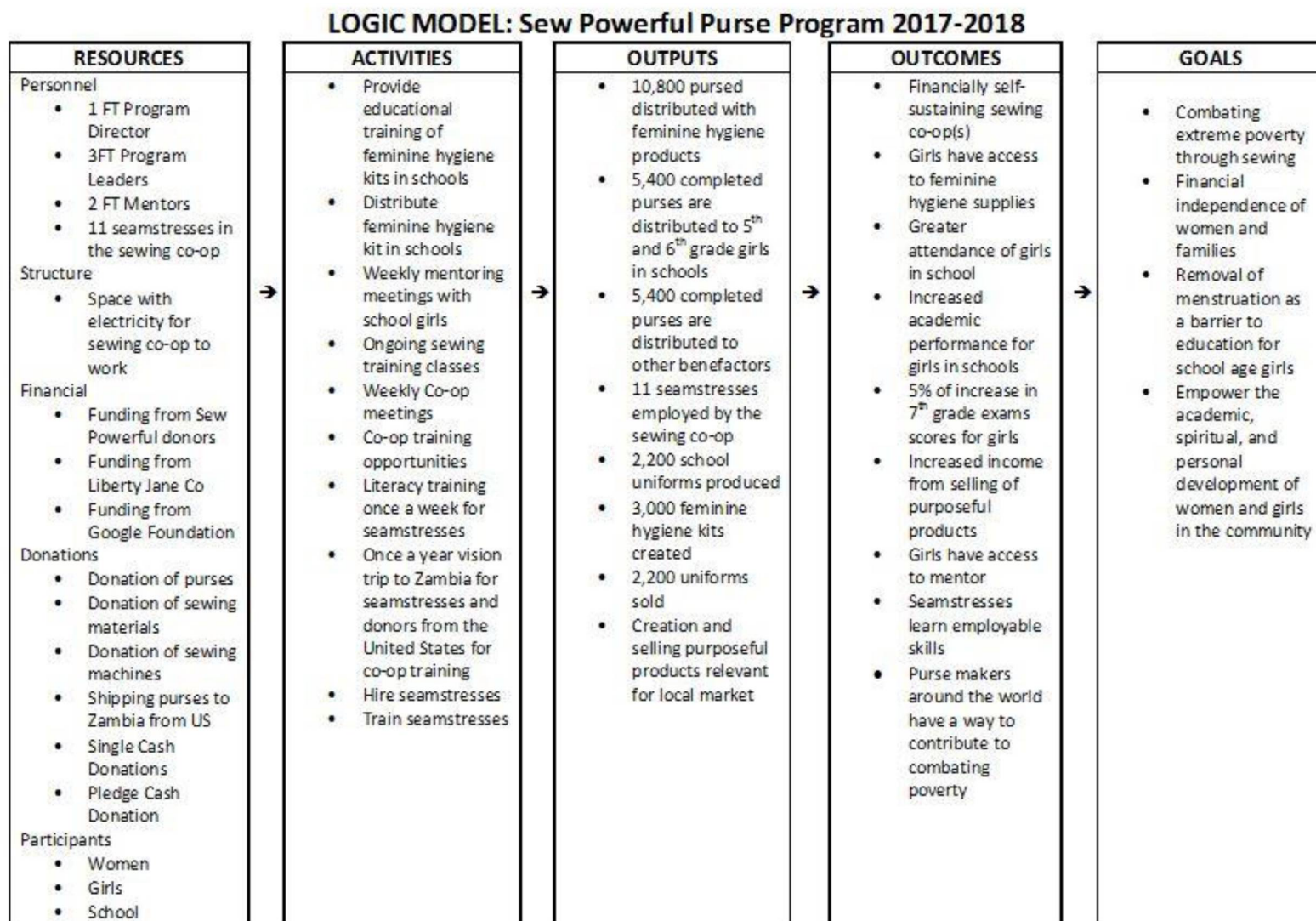


Figure 2: Sew Powerful Logic Model



Purpose of the Formative Evaluation

Menstrual hygiene management (MHM) is the process by which females can manage menstruation in a safe, clean, and hygienic manner. MHM is broadly categorized into two groups: *hardware interventions*, designed to address material deprivations such as absorbents and access to Water, Sanitation, and Hygiene (WASH) facilities; and *software interventions*, which uses education to address deficits in knowledge of menstruation and management (Hennegan and Montgomery 2). The foci of current menstrual intervention strategies have addressed the broad categories of the topic, and as a result, have circumvented some of the problems that prevent girls from attending school. However, these strategies do not address all of the impacts of menstruation that hinder girls' academic achievement. The two current intervention categories oversimplify the complexities of the more multifaceted interventions—physical, psychological, and social—needed to address this problem holistically.

The MHM strategies should begin by addressing immediate, physical needs: access to adequate WASH facilities in schools. An adequate facility includes a separate latrine for girls with a locking door for privacy, access to water and soap to wash themselves and the soiled articles, and an incinerator to destroy disposable absorbents. Girls also need access to absorbents consisting of disposable or reusable pads, tampons, or menstrual cups. Girls also need access to medication to help them manage the physical symptoms of menstruation such as dysmenorrhea and headaches. Once the immediate needs are addressed, the next set of intervention strategies should address the girls' psychological needs.

These psychological needs begin with educating students in reproductive health, managing menstruation hygienically, and addressing cultural beliefs about menstruation that affect girls' self-esteem and self-worth. Menstruation is a taboo topic in many cultures, including

Zambia; during three of my one-on-one interviews with the girl's caregivers, they confirmed that mothers are not to talk to their daughters about menstruation. The families expect girls to learn about menstruation in school, and the family's responsibility is to pass down cultural beliefs and practices about menstruation. These shared cultural practices place limitations and restrictions on where girls can go, what they can eat, and who they can interact with when menstruating. Schools are tasked with the additional responsibility not only of educating students about reproductive health but also of addressing cultural beliefs and practices that hinder girls' ability for academic success, cultural beliefs deeply rooted in the community.

Menstruation has created barriers for girls' academic success. When a girl reaches menarche (onset of menstruation), schools report an increase in their absenteeism that results in their lower academic performance on 7th grade test exams that, in turn, increase their risks of withdrawing and not continuing on to secondary school. My formative evaluation, which uses the Needs Care School as a case study, seeks to validate the authenticity of the claim that menstruation affects girl's academic achievement. The NCS was the pilot school for the Sew Powerful Purse Program, a holistic model for addressing MHM.

The formative evaluation of the Sew Powerful Purse Program (SPPP) was designed to facilitate program improvements. The improvement-oriented evaluation reports facts and statistics about on the current operations, outputs, and outcomes to shape future program services (Mark, Henry and Julnes). The SPPP's first distribution occurred in Zambia in May 2015. Since inception, the program has not deviated from its original model; therefore, Sew Powerful has found it pertinent to have an outside source examine the model to identify strengths and potential gaps in the program.

Research Methodology

Action research methods formed the basis of my research. In this method, I questioned the girls, teachers, and parents of NCS students to better understand the impact menstruation has on girls' education and to determine if the SPPP has addressed these barriers girls face. I used qualitative data collection methods in personal interviews, focus groups, informal conversations with stakeholders, and in closed and open-ended surveys. The quantitative data collection methods included the survey and planned to include the NCS's 7th grade test scores over the past three years. The SPPP stakeholders were the NCS girls who have received a purse, parents of the beneficiaries, school administrators, cooperative seamstresses, and community members.

The initial plan was to conduct four focus group interviews and ten personal interviews with various stakeholders consisting of girls, parents, seamstresses, and community members. The plan was to administer the survey prior to when new SPPP recipients received a purse and then an additional survey after they had received the purse as well as educational training by the Sew Powerful staff.

However, the time available to conduct research prevented me from conducting any of the focus group interviews. My primary research came from personal interviews conducted at NCS, during home visits, or during visits to new program participants such as new schools and the World Vision Area Development Program (ADP) One Chongwe. In all, I conducted thirteen interviews: five informal conversations with individuals at the schools, three in-depth interviews with NCS staff, four in-depth interviews during home visits with girls, and their family, and one in-depth interview with an NCS student. The NCS staff administered the survey questionnaire in my absence and returned eighty-eight completed ones to me. The 7th grade test scores from the last three years were never obtained from the NCS.

I supplemented the limited number of interviews by conducting archival research, reviewing twenty-five peer reviewed articles, visiting ten websites of organizations addressing MHM, and reviewing two program manuals for MHM interventions.

Research Questions

The four questions that guided my qualitative research interviews were as follows:

- 1) What has been the impact of the SPPP at the NCS?
- 2) What impact has the SPPP had on the female members of the recipient's family?
- 3) Have drop-out rates for girls decreased at the NCS?
- 4) How have the lives of the seamstresses changed by being part of the cooperative?

During interviews, impromptu or scheduled, the focus of the questions primarily sought answers for the first two questions. The questions scripted for the interviews consisted of following:

- 1) Introduce yourself and tell me about you and your family, including your name, grade, and age of siblings.
- 2) What do you want to be when you grow up?
- 3) What would prevent that from happening?
- 4) Do you ever miss school when you are menstruating?
- 5) If so, why do you miss school?
- 6) How many days of school do you miss per month?
- 7) What did you use to manage menstruation before the purse?
- 8) How long ago did you receive your purse?
- 9) How did you feel when you received the purse?

- 10) What did you like most about the purse and the contents in it?
- 11) What did you wish it included?
- 12) How long did the soap last?
- 13) Who did you give the second purse to?
- 14) How many purses do you wish you had received?
- 15) Do you share the contents of the purse with anyone when you are not using them?
- 16) How do you care for the items in the purse? What is your cleaning method? (ie: do you dry the items in sunlight to sanitize them or dry them inside the house?)
- 17) How has your life changed because of the hygiene items you received in the purse?
- 18) Are there any cultural traditions that restricted your daily activity during menstruation?

These questions were merely guides for conducting the interviews. However, each of the in-home visit interviewees answered each of the questions. I have placed the results of the interviews in the section titled “Findings.”

Limitations and Challenges

I experienced limitations in data collection. The challenges were time constraints for conducting interviews, cultural barriers, lack of time to establish rapport, and verifying the validity of information collected in the questionnaire survey. My time in Zambia was seven days with only five days to conduct research. I was a participant in a group trip and, therefore, somewhat bounded by the group itinerary. As a result, I had limited time with interviewees during impromptu interviews because the group was often ready to move on to the next location. There was one full day scheduled for me to conduct home interviews, yet even the timing of those interviews felt rushed. I bridged the insufficient time with interviewees by gathering

contextual information about the participants and Zambian culture from Sew Powerful Zambia Program Director and Head Mistress at NCS, Esther M'kandawire, who served as a cultural broker.

Esther began transforming her neighborhood in 2002 and has become a respected community leader. Her being an “insider” helped me more quickly bridge cultural barriers and establish rapport with interviewees. The interview participants appeared comfortable discussing menstruation with Esther, despite the presence of three outsiders, two of whom were American men. CEO and founder, Jason Miles, was present at every in-home interview and is well known at NCS, given his frequent presence at the school over the past three years. Each of the girls interviewed was cooperative and answered every question asked to them regardless of the sensitivity of the topic. I could not ascertain if their cooperation was due to Esther's or Jason's presence, or if Esther had chosen them because they were willing to discuss the topic. I still question the authenticity of the NCS girls' answers, given the pressure they may have been under because of the authority figures present during the conversations.

Esther is the NCS head mistress, and when she was present, I felt that the girls gave the responses that she would want them to give. I confirmed this suspicion when I reviewed the surveys the girls had completed. The surveys were not anonymous, and I found that in the eighty-eight completed surveys, a majority of the answers were the same. I revised the survey to make it anonymous and have asked Esther to re-administer it. I have also requested that she administer the survey at eight additional schools that will be participating in the Sew Powerful program. However, I am concerned that the additional survey data collected will be flawed and not provide an accurate assessment of the program.

Data Presentation

My initial research question was, “What is the impact of providing reusable feminine hygiene products to Zambian girls in school?” My research has revealed that the NCS girls are not negatively affected by a lack of feminine hygiene products. Even without the products supplied by Sew Powerful, most of them made their own reusable pads or had access to disposable pads. The reason for absenteeism was due to menstrual cramps and headaches. This information contradicted the initial information provided by Sew Powerful and that in the archival research.

I based my initial research question on prior archival research conducted. The research stated that girls lack access to feminine hygiene products which prevents them from attending school during menstruation. After conducting formal and informal interviews, I found this assessment to be inaccurate today. The research in the MHM field is relatively new and focuses on a lack of access to MHM as the primary obstacle to a girl’s achieving academic success. The NCS girls I interviewed stated they would not miss school because of menstruation, and the survey (Appendix A) results confirmed that a majority of the girls do not miss school because of menstruation. Each of them had previously used disposable pads or made their own re-usable pads. I found this to be true in other parts of Zambia, not only in Lusaka where I conducted a majority of my research.

The four tables below provide a summary of the findings from the research that address the number of days girls miss school due to menstruation (Table 1), activities they are unable to do during menstruation (Table 2), girls feelings about menstruation (Table 3), and other family members who needs a Sew Powerful Purse (Table 4).

Table 1: Number of Days Missed Due to Menstruation

<u># Days</u>	<u># Girls</u>	<u>Percentage</u>
0	70	80%
1	1	1%
2	8	9%
3	1	1%
4	1	1%
5	3	3%
Blank	3	3%
Ineligible	1	1%

Table 2: Activities Unable to do During Menstruation

<u>Activity</u>	<u># Girls</u>	<u>Percentage</u>
Chores	28	32%
Cook	24	27%
Chores & Cook	1	1%
Chores & Cook & Socialize	1	1%
Socialize with Friends	28	32%
Socialize & Cook	6	7%

Table 3: Girl's feelings about Menstruation

<u>Feeling</u>	<u># Girls</u>	<u>Percentage</u>
Annoyed at Timing	23	26%
Isolated	3	3%
Mood Swings & Weak	12	14%
Uncomfortable & Cramps	49	56%

Table 4: Other Family Members Who Need SPP

<u>Member</u>	<u># Girls</u>	<u>Percentage</u>
Aunt	3	3%
Cousin	1	1%
Mother	7	8%
Sister	67	76%
Sister & Mother	2	5%
Sister & Aunt	4	2%
Sister & Niece	2	2%

On one of our days in Zambia, we visited a World Vision Area Development Program (ADP) in One Chongwe. During an ADP school ceremony, Sew Powerful was distributing fifteen hundred reusable feminine hygiene kits. At this event, both male and female students displayed the reusable feminine hygiene pads they make in school. Each student makes two variations of the pads using material they have at home. The fabric for the reusable pads comes from their skirt wrap or chitenge. I conducted an interview during the ceremony with Nonde Kayula, a World Vision (WV) Zambia employee, and I inquired about the barriers females face because of menstruation. Nonde stated that there was a myth that boys could not mix with girls during menstruation, resulting in the girls remaining at home during their periods. Therefore, the girls missed school because of a cultural belief about menstruation, not because they lacked access to MHM. World Vision, then, first had to first address the cultural belief before it could focus on MHM interventions (Kayula).

In the urban community of Ngombe, I inquired about cultural myths and found that they were not as prominent as in the rural community of One Chongwe. The myth that did exist involved restricting menstruating females from eating with males. The belief was that if men did not drink a homemade remedy prior to eating with a menstruating girl, then they would suffer a severe cough. In rural communities, the cultural traditions are more deeply ingrained, and women lack gender equality. In urban communities, the traditions tend to decrease with the merging of different tribes, and women gain more rights and authority. I believe, therefore, that Sew Powerful has not had to address cultural myths while working in Ngombe because the myths that do exist do not prevent girls from attending school. However, as Sew Powerful expands its program to other locations, this myth situation may not always be the case. This prevailing cultural fact was one of the discoveries I made in my review of the findings.

Recommendations

Upon reviewing my research, I have identified gaps in the data because of questionable data results, requiring the need for additional research. The gaps in data result from potentially unreliable survey responses. I believe that changing the survey to be anonymous can provide valid data in the future. However, I should also add a question about cultural traditions regarding menstruation. I now understand that cultural traditions and myths about menstruation are essential to address before successfully implementing additional MHM interventions.

Regarding the MHM interventions, I recommend that Sew Powerful design a program to establish objectives for both the Sew Powerful Purse Program and the seamstresses in the sewing cooperative. The objectives will describe indicators that can then provide a baseline evaluation. Without a program design, Sew Powerful will be unable to measure the impact of its programs and ultimately determine if it is making progress towards its vision. In the limited interviews conducted, all of the participants stated they were pleased with the purse and that it had a positive impact on them. The qualitative data substantiates the positive impact of the SPPP on the community, but the recommended planning process is necessary to impose before Sew Powerful replicates its model in other low-income countries. Appendix A offers a sample, anonymous survey in which participating girls can honestly answer the questions, knowing their identities are safe. Question 16 reads, “What are you unable to do while menstruating?” This question may reveal pertinent information about cultural practices that Sew Powerful and other MHM agencies can help mitigate.

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Appendix A: Sew Powerful Survey



Please take a few minutes to fill out this survey.

Sew Powerful appreciates your feedback and your answers will be kept confidential. Thank you for your participation.

Students Age: _____ Students Grade: _____

School Name: _____

How many people do you live with: _____ Please write the number of the following living with you below.

Mother _____ Father _____ Sister _____ Brother _____ Grandfather _____ Grandmother _____

Aunt _____ Uncle _____ Cousin _____ Nephew _____ Niece _____ Friend _____ Other _____

Do you know what menstruation is? No Yes Not sure

Have you started menstruating? No Yes (If no, continue to #5. If yes, continue to #1)

1. Do you miss school when you menstruate? No Yes
2. If yes, write in how many days of school do you miss every month? _____
3. If yes, why do you miss school? cramps/stomach pain lack of pads Other: _____
4. Check all the items you currently use to manage the menstrual blood.
 Disposable pads Re-usable pads Clothing/fabric Leaves
 Other: _____
5. Do you have an adult that helps you manage your period? No If yes, who? _____
6. Do you own underwear? No If yes, how many pairs? _____
7. Who would you go see if you started menstruating at school?
 Teacher Nurse Friend Nobody Other: _____
8. Have you ever had sex in the last one year? No Yes Not sure
 If yes, how many times did you have it? _____
9. Have you ever done an HIV test before? No Yes
 If yes, when was it? _____ How were the results? _____

10. Do you understand how to use the hygiene product? No Yes Not sure

11. Will you use the re-usable hygiene product? No Yes Not sure

12. Do you have other females in your family that need this? No Yes, who? _____

13. Who will you give your extra purse to?

Sister Mother Friend Nobody Other: _____

14. What did you learn today that you didn't know already?

15. How do you feel about menstruation?

16. What are you unable to do when you are menstruating?

17. What do you want to be when you grow up?

Appendix 2: Sew Powerful Sewing Cooperative Business Plan

Executive Summary

Sew Powerful is a nonprofit organization registered in Auburn, Washington, with the mission to “combat extreme poverty in Lusaka, Zambia, through the raising up of an organization of sewing cooperatives” (Sew Powerful). Seamstresses in the cooperative are employed to make purposeful products such as school uniforms and reusable feminine hygiene pads, and they also help manufacture soap to generate income for the cooperative. Sew Powerful’s business plan is to hire sales representatives to market and sell these “purposeful products” in Lusaka. These sales representatives will be a vital aid in taking Sew Powerful’s sustainability plan forward.

Sew Powerful’s cooperative seamstresses’ first purposeful product was the school uniform, at the recommendation of the local women. All students who attend school in Zambia are required to wear a uniform. The Sew Powerful cooperative initially started making uniforms for one school and has expanded to five schools. However, because parents have difficulty paying for these uniforms, this model has not generated enough income to fund the sewing cooperative.

The second purpose product is the reusable feminine hygiene pads, currently distributed freely to girls in surrounding schools. Through this product, the sewing cooperative seeks to employ seamstresses as well as provide school age girls with the necessary hygiene items needed to stay in school when menstruating. The World Bank estimates that girls miss between 10-20% of their education because of menstruation (Purvis and Zee). Missing school, girls fall behind and often cannot go on to secondary education. This crucial misstep increases their chances of

early childhood marriage, pregnancy, and exposure to HIV or AIDs, thrusting them into the cycle of poverty at an early age. This poverty is the subject of C.K Prahalad's book, *The Fortune at the Bottom of the Pyramid*, which states that addressing poverty alleviation involves more than a financial market access alone; it involves addressing the most pressing social and cultural lacking such as basic necessities, education, and information that help people seize economic opportunities (Bornstein and Davis 102). The Sew Powerful cooperative addresses the economic market access as it seeks to remove barriers to education for girls. Hiring sales representatives to support the cooperative can help provide the sustainable independence needed to support this model long term. Sew Powerful's expansion plans depend on its being able to ensure the success of its sustainable model.

Background

In 2009, Sew Powerful CEO and cofounder, Jason Miles, traveled to Lusaka, Zambia, where he visited the Needs Care School (NCS) in Lusaka's Ngombe compound, the poorest urban slum in the country. The head mistress of NCS, Esther M'kandawire, operated this school in an empty church building under construction. Esther had dedicated the NCS to provide education to orphaned children in the Ngombe compound. Jason was tremendously influenced during the visit and dedicated himself to do all he could to support the school through personal financial donations.

In 2010, in partnership with his wife and cofounder Cinnamon, he created Sew Powerful and registered it as a nonprofit organization. Sew Powerful's theory of change is combating extreme poverty via the creation of sewing cooperatives, providing jobs for women, and manufacturing purposeful products that create sustainable economic opportunities and other

benefits for the community. By the year 2020, Sew Powerful aspires to employ twenty seamstresses in the cooperative and supply over 10,000 girls in over thirty schools in Lusaka with reusable feminine hygiene products (Sew Powerful).

The 2020 goal primarily depends on replacing financial support from the United States, which funds the salaries of the seamstresses, with a financially self-sustaining model that employs sales representatives to market and sell the products. This plan will create income for the sewing cooperatives independent from the foreign financial support. These sales representatives will speak with local schools and markets to negotiate selling the Sew Powerful cooperative's purposeful products.

Products

The Sew Powerful seamstresses create purposeful products consisting of school uniforms, reusable feminine hygiene pads, and soap. The school uniform consists of a shirt, sweater, and pants, or a dress, depending on the child's gender. These uniforms vary in cost between \$4 USD for a small uniform and \$8USD for a large uniform. Parents buy the uniforms through a series of micro payments.

The cooperative's soap making is a new and exciting venture. A US soap manufacturer donates soap fragments that are shipped to Zambia via World Vision. These soap fragments, provided free of charge, constitute the raw materials for the cooperative's soap making. Recast into bars, these go into the girls' purses, and a percentage of it returns to World Vision for use in its Zambian projects. (<not sure what you mean by "a percentage of it") Any remaining soap is available for sale in the community, financially undergirding the work of the cooperative.

To understand the manufacture and distribution of the reusable feminine hygiene pads, it is first important to recognize Sew Powerful's signature program, The Sew Powerful Purse. Sew Powerful enlist volunteers from around the globe to create and donate these cross body purses. They come from across the world to the Sew Powerful headquarters in Auburn, Washington, and are shipped to Lusaka, Zambia, through a partnership with World Vision. Reusable feminine hygiene pads (includes two shields and four liners), created by the sewing cooperative in Zambia are placed in the purses along with two pairs of underwear, and a bar of soap. Each purse also features a note of encouragement from the seamstress who donated the purse to the girl who will receive it. These purses are then distributed to school age girls in the Ngombe compound. Currently, US donors to Sew Powerful are covering the cost of the manufacturing the feminine hygiene pads Hiring sales representatives will enable Sew Powerful not only to supply the schoolgirls but also to sell a portion of the manufactured pads, thereby creating financial independence for the sewing cooperative.

Sew Powerful is considering the strategy of having the cooperatives combine the school uniforms, reusable pads, and soap into one parcel for parents to purchase. Schools that sign a contract with Sew Powerful to manufacture their uniforms will get, for each girl, a complete uniform, a Sew Powerful purse, and five additional bars of soap to ensure the girls have enough soap to clean the reusable pads for one year. Sew Powerful will offer the uniform package to the parents at a discounted rate compared to that of market prices. This new marketing will promote the sale of all purposeful products created by the cooperative.

Operations

The program will operate in a business plan jointly created by the existing sewing cooperative in Ngombe and the Sew Powerful board of directors in Auburn, Washington.

Bornstein and Davis state that planning forces members to come together, set priorities, agree on the details of implementation, and turn vague intentions into time-bound goals (49). Sew Powerful currently operates as a nonprofit, but its cooperatives' purposeful products provide it the opportunity to transition to a social enterprise which incorporates business principles into its daily operations. The aspiration of Sew Powerful is to remove the current structure of top-down charity that has historically proven unsuccessful at alleviating poverty and in helping to develop countries (Lupton 93).

Market

To market to Zambian customers, Sew Powerful will create a customer journey map which help provide new insights about the customers as well as opportunities to look beyond the existing offerings and consider the total customer experience (Kelley and Kelley 233). The Zambian Program Director will implement this process and will also rely on local community partners for input about the final business strategy. Hiring sales representatives to market the cooperatives' products will be key in this strategy. The Sew Powerful sewing cooperative, itself, locates the Ngombe compound, one of the worst urban slums in Lusaka where most residents are living below the poverty average. This location creates a tremendous affordability challenge for selling the manufactured products.

Strategy

To accomplish its mission of ending extreme poverty in Lusaka, Zambia, and particularly for the women, though the raising up of seamstresses, Sew Powerful must identify factors contributing to this poverty, some of which include a weak economy, lack of education, poor health, and personal problems. These concerns interconnect; thus, Sew Powerful programs must

address each if it hopes to combat extreme poverty for the women and families in Zambia who suffer each of the stated concerns and who consequently have low family incomes.

The lack of financial resources contributes to systemic education and health problems in Lusaka. The education system experiences high rates of absenteeism, particularly with female students, which ultimately leads to a high drop-out rate, early childhood pregnancy, and marriage for these girls whose health and employment opportunities might be better if they could finish school. As discussed earlier, one strategy is to provide girls with MHM so that menstruation does not prevent their attending school.

The current 2020 strategy addresses three of the four contributory factors of poverty. Employing women in the sewing cooperative creates a ripple effect in the community that will provide secondary benefits. Although women often earn smaller, more regular streams of income that help meet day-to-day expenditures, they also use their income to support their children's nutrition, health, and education (Kellison). Employing women through the sewing cooperative makes an investment that extends beyond the employee to her children and family.

The second strategy is to include a Sew Powerful Purse with each girl's uniform, allowing girls to stay in school during menstruation. The most consistent global predictor of the well-being of a society is women's educational attainment (Bornstein and Davis 67). The primary objective will be to co-powerment of the seamstresses in providing economic opportunity allowing them to provide a better life for themselves and for their families. The plan will identify measurements such as the Progress out of Poverty Index (PPI); otherwise, because Zambians often work multiple jobs, it is challenging to determine if economic opportunity has occurred. Which means that Sew Powerful must examine alternative measurements of success

such as hybrid insights. Hybrid insights allow qualitative data (personal stories) to be embedded in quantitative data that brings the data to life (Kelley and Kelley 89).

The full business plan will measure the impact of each strategy. Lynch and Walls state that measuring impact is a business enterprise's fundamental need (138). It requires focusing on outputs in the beginning but also tracking information that can be used to measure outcomes over time.

Management

The Sew Powerful management and Board of Directors have decades of experience in nonprofit and international development work which makes them not only passionate but fully equipped to combat something as complex as poverty in Zambia. Jason Miles, CEO and cofounder, manages the marketing and operations of Sew Powerful. Cinnamon Miles, cofounder and Senior Designer for Liberty Jane Clothing, oversees the cooperative training program for the seamstresses. Jason and Cinnamon have two successful companies in the sewing industry, Liberty Jane Clothing and Pixey Fairy. Jason has an MBA with an emphasis in International Non-Profit Management, and he worked at World Vision for sixteen years. The Zambian Program Director and Head Mistress of Need Care School, Esther M'kandawire, has been managing these two ministries for over ten years. A leader in her community, Esther has opened new opportunities for sewing contracts with local schools. She oversees the management of the sewing cooperative, and given her in-depth understanding of her community, market conditions, and economic potential, she is an instrumental decision maker in the expansion strategy.

The Sew Powerful Board of Directors consists of Dana Buck, Toby Capps, Kevin LaRoche, and Andy Smith. Dana Buck recently retired from World Vision after thirty-eight

years in senior management; Toby Capps is a sales executive with McKesson Medical Surgical; Kevin LaRoche is an ordained minister on staff at Renton Christian Center; and Andy Smith, the Executive Pastor at Saint Matthews Lutheran Church in Walnut Creek, California, has served in ministry for thirty years, including time at World Vision (Sew Powerful).

The Sew Powerful leadership team possesses a mix of aspiration and motivation. The members have realized that “going for it” in a big way takes an enormous amount of work and risk, but they know the work is necessary if they want to have an even greater impact in Lusaka, Zambia (Lynch and Walls 154). The leadership team understands the complexities of community development, and they are all invested in committing their time, talent, and treasure into the organization. Similar to other organizations, Sew Powerful has operated as a traditional nonprofit; however, with expansion and focus on sustainability, the leaders will apply their decades of business experience to shift Sew Powerful to operate as a social enterprise.

Financial Information

Sew Powerful is an organization that raises funds in the United States to support the financial needs of the 2020 strategy which includes employing eleven additional for a total of twenty seamstresses. Hiring the addition seamstresses will allow cooperatives to sell 2,200 more school uniforms, produce 3,000 re-usable feminine hygiene products, and distribute 10,800 completed purses with feminine hygiene products. The salary for one seamstress is \$110USD per month, excluding any cooperative operating costs. Hiring sales representatives will require Sew Powerful to redirect a set amount of the monthly income to the expansion program to begin generating income in Zambia. US funding for Sew Powerful comes through a pledge product, Atelier Angels, and monthly pledge amounts are \$19, \$29, and \$49. These funds cover the cost

of staff (sewing cooperative staff), rent of facility, and the cost of maintaining the equipment (Sew Powerful).

Summary

Sew Powerful has built an existing model of a sewing cooperative producing purposeful products for sale and donation. Sew Powerful aspires for the cooperative to become self-sustaining through identifying relevant markets and selling its cooperatives' purposeful products. The expansion program will use sales representatives who will help the seamstresses sell their products at a higher volume and generate income that covers their operational costs. In the US, Sew Powerful will continue to undergird the operational cost to allow the seamstresses to market their products at a slightly reduced price that is congruent with the economics of the community. By solidifying business principles into the organization, Sew Powerful can transition from the traditional model of nonprofit charity to function as a social enterprise. This business model aligns with its theory of change for combating extreme poverty in Lusaka, Zambia, through female operated sewing cooperatives.

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