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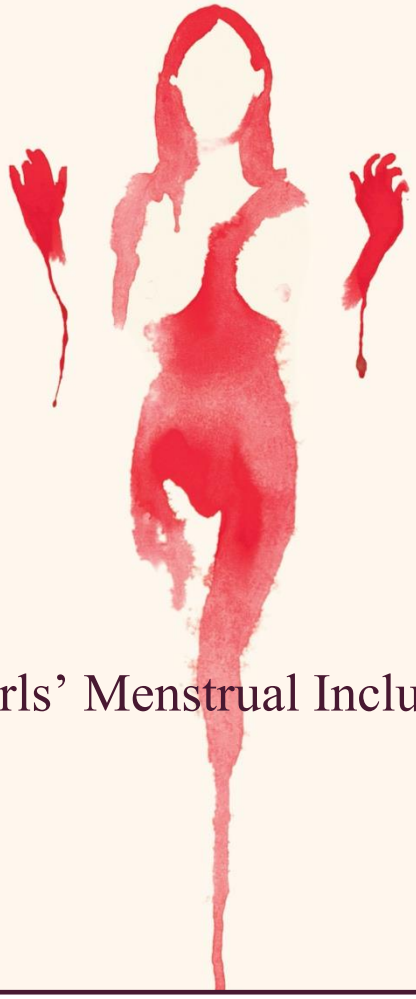
"We Are Not Bad, and We're Not Doing Anything Wrong"



Exploring Girls' Menstrual Inclusion in India

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Abstract

In recent years, there has been a surge in research on menstrual poverty in Sub-Saharan Africa, and scholars are debating which interventions are the most appropriate. One of the leading theories is Civil Society Based Intervention which prescribes a mix of sanitary product-provision and menstrual education. This study contributes to the discussion by testing the Civil Society Based Intervention outside of the African continent. The action research is based on an exploratory case study in the village of Kherwara, Rajasthan, India. The research is a longitudinal cohort study, as it follows the participants over a year, gathering data through a baseline and a follow-up study. This is done by utilizing methods of focus group discussions, in-depth semi-structured interviews, and qualitative observations. The thesis introduces and utilizes the conceptual framework of Menstrual Inclusion, based on parts of Goffman's theory of stigma (1969) and Oxoby's theory of social inclusion (2009). This allows a comprehensive assessment of the intervention, as the framework acknowledges and captures the complex sociological realities that menstruating girls navigate in their daily lives. The findings from this study indicate that the Civil Society Based Intervention is appropriate in the Indian context, but that it has certain shortcomings, as it fails to address issues of physical discomfort and pain, the discredited stigma, and the lack of water, hygiene and sanitation facilities in public spheres. However, as this study is exploratory in its design, replication in other settings is needed to make viable conclusions.

KEYWORDS: Menstrual Hygiene Management, Menstrual Inclusion, Menstrual Poverty, Women's Health, India

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The opinions in this paper are not necessarily shared with any of the above-mentioned entities.

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List of Abbreviations

ASGH	All Saints' Girls' Hostel
BDTA	Bombay Diocesan Trust Association
CSBI	Civil Society Based Intervention
DKM	Danish Kherwara Mission
GDP	Gross Domestic Product
FGD	Focus Group Discussion
MHM	Menstrual Hygiene Management
MHMP	Menstrual Hygiene Management Product
NGO	Non-Governmental Organization
SSA	Sub-Saharan Africa
UNHCR	United Nations High Commissioner for Refugees
WASH	Water, Hygiene and Sanitation
WHO	World Health Organization

1 Introduction

Twenty-five percent of the world's population menstruates, yet menstruation is a topic of great taboo, and women encounter stigma, misinformation, and stereotypes all over the world (Chrisler, 2013). In resource-poor settings especially, the material and psychosocial deprivations affect women's and girls' lives greatly, as studies have found a connection between menarche and lowered mobility, school absenteeism, and drop-out rates. (Arora, 2017 Chrichton et al., 2013, Sommer., 2010, Beksinska et al., 2015). Studies have found that girls lose up to five days in school per menstrual cycle (Montgomery et al., 2012, Henegan et al., 2016) hence being a tremendous obstacle to girls' present well-being as well as future economic prospects and independence.

Menstruation has become a topic of research and policy implementation, and scholars discuss how to deal with the deprivations that women and girls face in the global south. Currently, there are two leading theories, one of which this thesis calls the Civil Society Based Intervention (CSBI). This intervention consists of a mix of Menstrual Hygiene Management Product (MHMP)-provision and education in Menstrual Hygiene Management (MHM) and reproductive health. Most of the research is based on experiences from Sub-Saharan Africa (SSA). This study contributes to the ongoing discussion by testing the CSBI through a case study in India. Because of the different social and religious contexts of India compared to SSA, this study can give valuable insight in the appropriateness, impact, and limitations of the CSBI. This is highly relevant to the development and implementation of interventions that can facilitate girls' Menstrual Inclusion.

Thus far, the research has focused on productivity and school-attendance, which does not capture the full potential and impact of the interventions. Therefore, this study introduces the concept of Menstrual Inclusion, based on Oxoby's framework for social inclusion (2009) and Goffman's theory of stigma (1969). This allows for a more comprehensive assessment of the complex set of issues that women and girls face in the global south.

1.1 Aim of Study

This study serves two aims. The first is to explore how appropriate the CSBI is in the Indian context, to contribute to the discussion on how to facilitate girls' Menstrual Inclusion. The second aim is to test the conceptual framework of Menstrual Inclusion as an assessment model for interventions on menstrual poverty.

The research question is:

"How appropriate is the Civil Society Based Intervention to facilitate Menstrual Inclusion in India?"

This action research is a pilot study[1] that explores the possibilities and limitations to the CSBI based on the framework of Menstrual Inclusion. The study is concerning the individuals that are directly affected by the CSBI. This is equivalent to studies in SSA and implemented to facilitate comparability between studies on the two regions. However, to fully comprehend the meaning and social constructs of menstruation, future research would benefit from a greater scale of participants, including key informants as politicians, teachers, and religious leaders. These are not included in this study.

As the study is exploratory in its design, this study does not rule out any rival hypothesis or other causal variables. Hence, it is not possible to determine if the CSBI is the full reason for the findings in this study. Therefore, we cannot determine the feasibility of the CSBI based on this singular case. That is why this study needs replication in multiple settings of India before more viable conclusions can be determined.

1.3 Definitions

This study differentiates between the intervention and the study. The intervention refers to the CSBI, executed in cooperation between the researcher, the Danish Kherwara Mission (DKM), and the All Saints Girls Hostel (ASGH). The study refers to the process of data collection and analysis.

Except for one, all interviews were conducted in All Saints Girls' Hostel in Kherwara, Rajasthan. One focus group interview was conducted in a neighboring village, Aspur. If nothing else is stated, the interview in question was conducted in Kherwara. To protect the girls' identity, all respondents have been given false names.

Menstrual Hygiene Management (MHM) has been defined by Sommer and Sahin (2013) as "*using a clean menstrual management material to absorb or collect blood that can be changed in privacy as often as necessary for the duration of the menstruation period, using soap and water for washing the body as required and having access to facilities to dispose of used menstrual management*

[1] A pilot study is a small-scale study that aid the design of future studies. The purpose is usually to test procedures, interventions, the validity of the tools, and the outcome variables, to prepare for a greater scale, confirmatory studies (Arain et al, 2010)

materials" (Sommer and Sahin, 2013, 2). Hence, this term relates to all the hygienic aspects of having a period, from being able to collect and dispose of blood, to changing in privacy.

According to the World Health Organization, (WHO) civil society refers to "*the space for collective action around shared interests, purposes and values, generally distinct from government and commercial for-profit actors*" (WHO, 2020, 1). Informal actors can facilitate Menstrual Inclusion, as is exemplified through *didis* (big sisters) who empower and educate others (see section 6.3.3, education, and agency). However, as the CSBI requires capacity and financial capital to be implemented, this thesis focuses on the formal actors in civil society, such as non-governmental organizations (NGOs), associations, and faith-based organizations.

Africa is a vast continent with a complex history and huge diversity between and within countries. It is therefore impossible to consider Africa as one unit. However, the CSBI studies discussed in this thesis are all based on the same factors, including resource-poor, majority-Christian samples, (Montgomery et al., 2012; Aniebue et al., 2009; Mason et al., 2013) most of them conducted in a rural context. Furthermore, all descriptive and intervention studies in the literature review except for one (McMahon et al., 2011) find menstruation to be discreditable, meaning that the respondents will attempt to hide their menstruation. This is different than the Indian context, in which menstruation is both discreditable and discredited, meaning that the girls are unholy or dirty when menstruating. This distinction has proven important to the CSBI's impact on Menstrual Inclusion. The researcher acknowledges the cultural diversity of the region, but due to the shared characteristic of the studies, they have been grouped for this study.

1.4 Thesis Structure

This dissertation starts with a literature review of menstrual poverty in SSA and the interventions to address the issue. The section pays special attention to the limitations of the literature, especially regarding the methodological approaches and assessment of the interventions. Chapter 3 provides the background on India's socio-economic conditions, the stigma theory, and the case. Information about the intervention's MHMPs are provided as well. The theoretical framework introduces and explains the concept of Menstrual Inclusion, based on the indicators of the theory of stigma (Goffman, 1969) and social inclusion (Oxoby, 2009). Chapter 5 discusses the methodological framework, and how the methods may affect the findings in the study. Chapter 6 address the findings of the study. This section is structured as follows: first, a review of the stigmas is provided

to showcase the conditions that the respondents must navigate in their daily lives. Next, it highlights how the CSBI has affected the respondents' Menstrual Inclusion using the structure of the operational indicators of Menstrual Inclusion. Chapter 7 discusses issues of bias and self-reporting and compares the findings of this study to the literature from India and SSA. Hereafter, the shortcomings of the CSBI is addressed by highlighting the issues of water, hygiene, and sanitation (WASH)-facilities and issues of pain and discomfort. Finally, a conclusion is provided, with recommendations for future studies.

2: Literature Review

According to the gender system theory (Ridgeway and Smith-Lovin, 1999), gender is a system of social practices that creates stereotypes and organizes relations in our social world. To exist, this system requires everyday acceptance and validation from all parties' widely shared cultural beliefs (Ridgeway and Smith-Lovin, 1999). A case hereof is menstruation, for which women encounter stigma, misinformation, taboos, and stereotypes all over the world (Chrisler, 2013). In the global south especially, menstruation and menarche pose as difficult challenges because of the social roles, stigma, and religious taboos surrounding the process, held in place by traditional, local belief systems (Khaundal and Thakur, 2014).

According to Chrichton et al., (2013) women and girls in resource-poor settings encounter a "*combination of multiple practical and psychosocial deprivations*" (Chrichton et al., 2013, 1) concerning their periods. To conceptualize this, they have coined the term *menstrual poverty*, which is universal for all resource-poor settings (Chrichton et al., 2013). It is important to note that menstrual poverty cannot be viewed as an isolated concept but exists as part of the greater context of poverty and deprivations. However, for this study, the concept of menstrual poverty helps shine light on the specific deprivations that women and girls experience in the global south. In this section, I will use the framework of menstrual poverty to highlight said deprivations and challenges, focusing on SSA.

Material needs (ibid) or the equivalent, MHM, includes access to MHMPs and safe and private WASH-facilities. There is a lack of proper and private WASH-facilities both in households, schools, and other public spheres in resource-poor settings (Madiziyere et al., 2018; Chrichton et al., 2013; Hyttel et al., 2017). Water is generally available in schools, but the source is often placed away from the toilet stalls, and privacy and soap are scarce, contributing to an unwelcoming environment (Mason et al., 2013, Hyttel et al., 2017, McMahon et al., 2011). Scholars agree that pads and tampons are unaffordable for women and girls in resource-poor settings (Chrichton et al., 2013; Madiziyire et al., 2018; Bekinska et al., 2015; Mason et al., 2013). As a result, women and girls use other, *improvised* (Hennegan et al., 2016, 1) methods of management for their menstruation, such as old cloth, toilet- and newspaper, underwear alone, mattresses and sponges (Bekinska et al., 2015; Henegan et al., 2017; Mason et al., 2013). Pads are used longer than prescribed, resulting in pain and discomfort, and cloth and other reusable materials are not washed adequately and worn before properly dried, resulting in rashes and infections (Mason et al., 2013,

Montgomery et al., 2012). One study found that girls who used improvised MHMPs lost three to five days of school per menstrual cycle (Montgomery et al., 2012), and girls who do attend school have difficulty concentrating in class for fear of leaks or undesirable odor (Mason et al., 2013; McMahon et al., 2011). Hence, adolescent girls in resource-poor settings lack proper MHM, and studies have found that this affects their health, school attendance, and ability to concentrate.

According to Crichton et al. (2013), *psycho-social deprivations* include inadequate knowledge, support, and guidance before menarche, and in the subsequent menstruations (Chrichton et al., 2013.) These topics are closely related to stigma and societal expectations:

Reproductive health issues, a term that includes marriage, pregnancy, female circumcision, and menstruation, are leading causes of social restrictions on girls' lives in the global south (Thomas, 2002). Girls who are going to school after menarche are teased that they should "*go home*" and "*get married*" (McMahon et al., 2012, 7). The literature has consistently supported the argument that menarche and menstrual poverty contribute to absenteeism from school, sports, and social activities (Chrichton et al., 2013; Mason et al., 2013; Madiziyiere et al., 2018; Philip-Howard et al., 2016). One study from Uganda found that 63,4 percent of girls miss activities due to their periods (Hennegan et al., 2016). Menarche is affecting the social expectations of the girl, effectively limiting her mobility and access to institutions and social spheres as well as educational and economic opportunities.

In the literature on resource-scarce settings, menstruation is viewed as dirty and shameful and is surrounded by secrecy and fear of discovery (Mason et al., 2017; Rajagopal and Mathur, 2017; McMahon et al., 2011; Mason et al., 2013; Chrisler et al, 2013, Philips-Howard et al, 2016). Culturally speaking, menarche is signaling to the family and the surrounding community that the girl is ready for marriage and sexual activity (Montgomery et al., 2012). In one study, some girls feared telling their parents about their menstrual debut as their fathers or other men in the community may take advantage of them sexually (Mason et al, 2013). As menstruation is discreditable (Goffman, 1969), there is a societal expectation to keep menstruation secret, why women and girls in multiple studies emphasize their fear of disposing of MHMPs and staining their clothes (ie. Mason et al., 2013, Hyttel et al., 2017; Chrichton et al., 2013; Philips-Howard, 2016). When asked what the most efficient method to deal with these issues are, schoolgirls in Kenya answered, "*go home*" (McMahon et al., 2011, 7). The stigmas related to menstruation affect girls'

mobility and school attendance, a notion that is supported by multiple scholars (e.g. Sommer, 2010; Chrichton et al., 2013; McMahon et al., 2011).

The stigmas affect girls' knowledge and support during their periods. Studies from SSA generally agree that adolescent girls lack adequate knowledge about menstruation and reproductive health (Chrisler et al., 2013; Aniebue et al., 2009; Hyttel et al., 2017). One study from Nigeria found that forty-four percent of girls did not receive any information regarding periods before menarche (Aniebue et al., 2009). Menarche is therefore described as "*frightening*" and "*confusing*" (Aniebue et al., 2009, 6) and comes as a "*shock*" to many girls (Mason et al., 2013, 3). Mothers are described as the girls' primary source of information, but they find the topic shameful to discuss, why it is not done in-depth (Aniebue et al., 2009, Chrichton et al., 2013). Hence, due to the stigmas surrounding periods, girls lack accurate information and experience limited emotional and practical guidance and support before menarche as well as after. One study argues that there is a direct correlation between proper pre-menarchal training and girls' perceptions about their periods, their MHM, and access to school grounds (Aniebue et al., 2009).

2.1 Interventions

Researchers and civil society organizations attempt to combat menstrual poverty. This is done through intervention-studies with a mix of the components MHMPs, education, and/or better WASH-facilities.

Great advocates like the UNHCR emphasize the importance of WASH-facilities "*in home and in public & institutional spaces*" (UNHCR, 2017, 5) and both Chrichton et al.'s (2013) and Ssewanyana and Bitanihirwe's (2017) frameworks include WASH-facilities. Some scholars support this by arguing that it facilitates girls school attendance (e.g. Dreibelbis et al., 2017; Maimaiti and Siebert, 2009; Sahin, 2015), and Rajagopal and Mathur (2017) argue that unmet sanitary needs at schools are one of the greatest barriers to girls' education in India (Rajagopal and Mathur, 2017).

The other leading approach includes MHMP provision and education on MHM and reproductive health. A great number of civil society-based organizations use this approach to combat menstrual poverty all over the world, e.g. Womena, Days for Girls, Binti Period, and Freedom4girls[2]

[2] These organizations work in wastly different social and geographical contexts, including Uganda, India, UK and Kenya. Days for Girls work worldwide, and has a special focus on indigenous populations.

(Wonena, 2020; Days for Girls, 2020; Binti Period, 2002; Freedom4girls, 2020) Therefore, for this study, this approach is called the Civil Society Based Intervention (CSBI).

The CSBI is affirmed by the literature, as scholars have found a positive relationship between product provision and school attendance (Montgomery et al., 2012; Philip-Howard et al., 2016; Henegan et al., 2016; Madiziyire et al., 2018). Some scholars argue that products can potentially circumvent substandard WASH-facilities, as they have a better absorbency than improvised methods (eg. Cup; Hyttel et al., 2017; Madiziere et al., 2018; reusable pads: Henegan et al., 2016, conventional pads; Montgomery et al., 2012). Education and product provision seem to be inseparable components to facilitate Menstrual Inclusion, as education facilitates correct use of the products (Hyttel et al., 2017). The literature indicates that the education has other benefits, as it opens the discussion and therefore breaks down stigma, improves peer support and creates more inclusive environments at schools (McMahon et al.; Aniebue et al., 2009; Montgomery et al, 2012). One study found that the results from the education-only group were comparable to the education and product-provision-groups after five months (Montgomery et al., 2012). On another note, the CSBI is both cheaper and easier to implement than WASH-facilities, which may be the reason for the abundance of research, and Non-Governmental Organizations' (NGO) interest and support for this method.

There are reasons to believe that this intervention will work in different social and cultural contexts: The literature in this review includes CSBI-studies from Uganda, Nigeria, Ghana, Kenya, South Africa, and Zimbabwe, representing a vast variety of social and cultural contexts. The studies also represent different levels of poverty, as one study only include women and girls with access to WASH-facilities (Beksinska et al., 2015), and some studies' participants live in isolated regions with no such amenities (Montgomery et al., 2011; Philips-Howard et al., 2016). Furthermore, one study shows the positive outcomes from training, and MHMP did not differ between Peri-Urban to Rural areas (Montgomery et al., 2011). This argument is supported by other studies, as they have found that the model works in both rural (Philips-Howard et al., 2016; Hennegan et al., 2016) and urban contexts (Madizyire et al., 2018). The great varieties of contexts the studies are based on strengthening the intervention and indicate that the CSBI could be applied in a wide range of social contexts, including India.

To summarize, scholars agree that social expectations, menarche, and menstrual poverty curtail girls' activities, mobility, and access to institutions and social spheres. There is an on-going debate

on how to tackle these issues, splitting the waters between a more comprehensive model including WASH-facilities and the Civil Society Based Intervention. As most of the empirical data originate from SSA, this study contributes to this discussion by testing the Civil Society Model in a completely different context.

2.2 Research Gaps

There is very little literature on other cultural contexts than SSA's. Furthermore, most of the studies from the African continent involves majority-Christian samples (e.g. Montgomery et al., 2012; Aniebue et al., 2009; Mason et al., 2013) This skews the data, as the studies do not represent the global south. Most of the intervention-based studies are short-term studies, spanning over three menstrual cycles (Hyttel et al., 2017, Beksinska et al., 2015, Madiziyire et al., 2018). Only one paper in this review conducted a long-term study for more than five months (Phillip Howard et al., 2016). They argue that long-term studies are needed to get an accurate picture of the results of the interventions (Philip-Howard et al., 2016). This research will address these two shortcomings, as the study includes Hindu participants and take place over a year.

Most of the CSBI studies focus on facilitating girls' access to school (Hyttel et al., 2017; Sommer, 2010, Montgomery et al, 2012; Philips-Howard et al., 2016; Hennegan et al., 2016). Exclusion from other institutions, social spheres, and activities play a lesser role in these studies. Other than the obvious importance of school attendance, there might also be a pragmatic reason for this focus, as school attendance is a quantitatively measurable indicator that is comparable across borders and social contexts. However, many of the studies rely on self-reported data on school attendance, which has been deemed inadequate and unreliable (Philips-Howard et al., 2016, Hennegan et al., 2016), and data collected this way had to be removed completely from Philips-Howard et al.'s study (2016). The one study that allegedly succeeded in collecting data on school absence and periods taught the participants about the importance of attending school, which may have affected their results (Montgomery et al., 2012). Obtaining reliable data on school attendance and periods seems difficult, if not impossible. Menarche and menstruation are affecting many other factors than school attendance. A more comprehensive framework is needed to assess if interventions are working. Therefore, this study will use the indicators of Menstrual Inclusion rather than school attendance indexes to examine the CSBI. (see 4.1: Menstrual Inclusion) This is implemented to contribute to the discussion on interventions aimed at combating menstrual poverty.

3 Background

As the aim of this study is to test the CSBI in a different context than SSA, this study utilized an instrumental case study conducted in Kherwara, Rajasthan, India. This section will address the socio-economic conditions of the region and describe the case and the products used for the CSBI.

Excluding 2008, India has experienced economic growth in its gross domestic product (GDP) per annum of 5 percent or higher since 2002 (World Bank, 2020A). This economic growth has contributed to a considerable decrease in people living below the national poverty line (World Bank, 2020B). However, the state of Rajasthan is a low-income state, and Kherwara *thesil* (municipality) is among the poorest in Rajasthan, with a poverty rate of twenty-two percent (World Bank Group, 2016; World Bank, 2018). Around forty percent of government schools in Rajasthan lack functioning toilets, and seventy-six percent of women use cloth rags, resulting in rashes and infections because they are used or stored before properly dried (Arora, 2018; Mason et al., 2017).

Overall, India is a male-dominated society on all levels, and women have little power individually as well as collectively (Mason et al., 2017). The literacy rate is more than twenty-five percent points lower for women than men, and dropout rates in the younger generation are higher for girls than boys (Rajagopal and Mathur, 2017). Seventeen percent of girls are married before the age of eighteen, a number that is twice as high in Rajasthan (Rajagopal and Marthur, 2017). Here, only twenty-three percent of women partake in domestic decision making (Mason et al., 2017). Therefore, the state of Rajasthan is *"reputed to be one of India's most male chauvinist states"* (Banerjee and Duflo, 2011, 250).

The taboos that women face in India are clear and outspoken, due to the stigma theory within Hinduism (Goffman, 1969). Many of these stigmas are based on the religious text, the Rig Veda (Chawla, 1994). The stigma theory impedes women's access to temples and imposes dietary restrictions on them when menstruating. According to the literature, women become untouchable and should remain in isolation (Arora, 2017; Mason et al., 2017). This stigma affects women's Menstrual Inclusion twelve weeks a year, as cross-national studies show that between seventy-six and ninety-two percent of women follow these regulations (Arora, 2017; Yagnik, 2013). Hence, girls experience major changes in their lifestyles and goals after menarche, as their choices, agency, and mobility are reduced considerably (Arora, 2017). The taboos also affect the girls' access to knowledge regarding menstruation. Sharma et al.'s systemic literature review found that on a

national level, less than half of girls are aware of periods before menarche (Sharma et al., 2020). Teachers are not a common source of knowledge (Sharma et al., 2020), resulting in mothers being the only source of information in traditional, rural societies. This contributes to existing knowledge gaps and makes taboos and social norms prevail (Rajagopal and Mathur, 2017).

This study is performed in a small village in rural Rajasthan. As most intervention studies on CSBI in SSA are conducted in rural regions, this facilitates comparisons between the two regions. The rural context deductively makes the social structures more prevalent. Aspects of poverty and prominent male-dominant gender systems will negatively affect the uptake of MHMP and Menstrual Inclusion, making the case a good test of CSBI's feasibility in India. Hence, poverty, patriarchal structures, discredited stigma, and traditional practices exclude Indian women and girls from various activities, affecting their economic independence and Menstrual Inclusion.

3.1 Description of the Case

The study was conducted at All Saints Girls' Hostel (ASGH) in Kherwara, Rajasthan, India. The words "hostel" and "girls' home" are used interchangeably in the Indian context. The hostel is a boarding school, where all the extensive needs of the girls are provided for. It is jointly run by the Bombay Diocesan Trust Association (BDTA) and their north-partner the Danish Kherwara Mission (DKM). The boarders at ASGH are from poor, rural families, who live in proximity of two hours' drive from ASGH. The girls are from the marginalized social group *scheduled tribes*, which receive special benefits from the state, i.e. scholarships, certain free medical services, job reservations (Corbridge, 2000, Louis, 2003).

There are currently fifty-three girls living at the hostel, from pre-school to 12th class (end of high school). The girls' home has a Christian affiliation, and there is devotion every night. However, it is not a requirement that the boarders be Christian. About half of the girls are from Hindu families. Because of renovations of the buildings, the girls moved from their usual living quarters to a temporary building in December 2019 (see figure 1 and 2) The new living space is smaller and has fewer options for privacy than the old one. The girls are living in three dorms, one of which houses more than half of the girls. The two other rooms being reserved for 10th and 12th class students, who must study uninterrupted for their exams.

Figure 1 All Saints' Girls' Hostel, temporary building (right side)

Figure 2 All Saints' Girls' Hostel, temporary building (left side)

Many of the girls mentioned that female elders influence their behavior and Menstrual Inclusion. Female elders is a commonly used term for aunties, mothers, and grandmothers. Aunties are not

necessarily blood-related to the girls, but is a nickname for women who have a say in their upbringing and ethical disposition. Despite the wording of the term, female elders do not have to be senior citizens and may be used for married women who have children themselves. Unmarried women who are older than the individual are called *didis* (big sister). The big girls at the hostel are didis. Formally, these girls help the smaller girls with the daily routine, but some of the girls take their role as didi further, and influence life at the hostel in different, informal ways.

The staff at the hostel consists of the Christian matron (headmistress) and a Hindu bhai (nanny). They are both females. The chef is a Christian male, his assistant a Hindu woman. The warden is a Christian male who lives with his family in a house next to the hostel. This study has shown that the girls face very different restrictions and taboos depending on their own and their family's religious orientation. In the same vein, the sexes and religious orientation of the authority figures at the hostel have proven to matter greatly to the girls' Menstrual Inclusion, as these are agency-givers within this geographical sphere.

Similarly, the case's geographical dimensions have proven relevant to the external validity of the study. Some of the girls mentioned that they could discuss their period with their friends at the hostel (Maniksha, 15-02-20; Diya, 15-02-20), but none of the respondents had talked to their friends at home or in school. This view is supported by Karishma, who argues that she can only talk to "*my mother, and in hostel, my friends*" (Karishma, 29-02-20). Hence, menstruation seems to be less discreditable in the hostel. The agency of inhabitants also depends on this geographical boundary: When in ASGH, the girls follow only the discredited stigmas that would affect the Hindu staff (namely cooking food for them), and one girl who was barred access to her family home when menstruating, slept inside when attending the hostel (Member-checking, 08-03-20). The hostel seems to be a special geographical sphere that allows the girls more control and agency, where they can be free from the heaviest of the stigmas. Most adolescent girls in India do not live in girls' homes like the case of this study. Hence, the choice of the case affects the study's external validity, why the study needs replication in other settings before viable conclusions can be made about the CSBI in India.

3.2 Products

The following section describes the products that the girls used in the study. The description includes traditional MHMPs such as cloth, but also the products provided by the government and

the study itself, being conventional pads, cloth pads and tampons, and menstrual cups. Before the intervention, the companies Ko&Ko and Organicup® donated different, reusable products for the girls to test for the CSBI. These can be seen in figure 3.

Figure 3 the reusable MHMPs tested in this study

Cloth is the traditional way of managing periods in Kherwara and the surrounding region. The MHMP is a piece of red felt, that is folded and placed in the underwear. It can be washed and reused. The method is cheap, as it only costs 40INR (0,5 USD) for one piece, which can be cut into more pieces, depending on the individual's flow.

A sanitary pad is "*a disposable absorbent pad used (as during menstruation) to absorb the uterine flow*" (Merrian-webster, 2020). It is placed in the underwear and worn once, after which it is disposed of. Pads are available in Kherwara in different quality and range from 30-69 INR per package (USD: 0,4-0,9). All girls in the study received sanitary pads through the Menstrual Health

Figure 4 a package of pads provided by the government. The package contains 6 pads. The girls receive 1-2 packages per month

Figure 5 a singular pad, as provided by the government

Scheme (see Figures 4 and 5). In this government scheme, sanitary pads are distributed through schools, colleges, and *Anganwadi* (child-health development) Centres (Rajagopal and Mathur,

2017; Times of India, 2018). The girls were meant to receive pads through the scheme since 2017, but due to issues of corruption and black-market sales, they did not receive them until august 2018 (baseline 1 and 2, 27-01-19). The girls receive one-two packages every month but still must add their MHMPs to have sufficient coverage. Despite the government distributing this product for a couple of years, women in the villages are still unaware of the products' existence (Mothers, Aspur, 07-02-20, field notes 18-02-20).

Two participants in the sample were given cloth pads and tampons to test. There is very limited literature on the reusable tampon in a resource-poor context, but cloth pads have been highlighted for their higher perceived absorbent reliability, less difficulty changing, and fewer leaks than improvised methods (Hennegan et al., 2016). However, the girls who use this method report to participate in less physical activities than their peers who use conventional pads (ibid).

The Menstrual Cup is a "*bell-shaped device usually made of medical silicone that is inserted in the vagina during menstruation to collect menstrual blood […] and collects more blood than, for example, tampons or menstrual pads*" (Hyttel et al., 2017). The Menstrual cup can be reused for many years and has therefore been described as a more sustainable, economic, and environmentally responsible method in the long term compared with other MHM methods (Howard et al., 2011; Hyttel et al., 2017; Beksinska et al., 2015).

4 Theoretical Framework

As Chricton et al. (2013) argue, we need "*effective, culturally acceptable, and sustainable methods [of] managing menstruation*" (Chricton et al., 2013, 22), to overcome menstrual poverty. As addressed in the literature review, there are two leading approaches to obtain this, of which this study will test the Civil Society Based Intervention through a case study in India. The existing studies from SSA focus on school attendance, which is one-sided, has a narrow focus on production and has proven hard to measure. As menstrual poverty is multi-dimensional, the measurement to assess the interventions should be as well, in order to acknowledge and capture the complexity. Therefore, this study coins the term *Menstrual Inclusion,* to provide a more comprehensive assessment of the intervention. This conceptual framework is based on Oxoby's theory of social inclusion (2009) and Goffman's theory of stigma (1969).

According to Goffman, (1969) there are two types of stigmatized people, discredited and discreditable. For the discredited persons, the stigma is already known to the surrounding society. For the discreditable, the stigma is not known in their social sphere, nor immediately perceivable (Goffman, 1969, 4). The type of stigma impacts how the individual maneuvers their social life. For the person who is discredited, the problem is to manage tensions and expectations, whereas for the discreditable, concealing, and managing information is the issue (Goffman, 1969, 45). The people who are not stigmatized are called "*normal*" (Goffman, 1969, 6). These avoid contact and discriminate against the stigmatized person, since the "*person is not quite human*" (Goffman, 1969, 6). They construct a stigma-theory, an ideology that explains and justifies the stigmatized person's inferiority, and the danger they represent to society (Goffman, 1969, 6). As explained in the background-chapter, the Indian stigma theory is based on Hinduism.

Social exclusion is associated with "*social stigmatization, blame, and isolation, which translat[es] to low self-esteem, a feeling of not belonging, and not having been given a chance to be included in society*" (Avramov, 2002, 259). Hence, social exclusion addresses a larger problem area, which includes social, cultural, moral, economic, and personal aspects. It affects the individuals' investments in various forms of capital, both monetary, human, and social (Oxoby, 2009; Plesa, 2013). Social exclusion and inclusion are described as conflicting processes on a societal level (Plesa, 2013; Atkinson and Hills, 1998; Oxoby, 2009) This means that social inclusion is addressed by social development through active intervention by agents in society (Plesa, 2013). This makes the concept relevant to us, as the CSBI is carried out by civil society.

Oxoby (2009) has redefined Atkinson and Hills' definitions of social exclusion (Atkinson and Hills, 1998) to form a comprehensive, palpable framework for social inclusion. This framework includes three indicators which are relativity, agency, and dynamics: *Relativity* relates to the individual's access to a given society, space, or institution (e.g the school, playground, market, and temple). The beliefs and behaviors of both the individual and the surrounding society are important, as these determine the individual's access to said arenas. *Agency* is the acts or state of individuals. In the typical case, the insurer (ie. parents, teachers, or religious leaders) hold agency over the insuree (the girl). However, the agency can also be intra-personal, as individuals to a degree can exclude or include themselves from a sphere of society. The choice to include or exclude themselves may depend on the conviction of the perceived prospects of the individual. These prospects are included in the last factor, *Dynamics* (Oxoby, 2009). Atkinson (1998) states that dynamics is beyond the current state of the excluded person, as it regards the perceived prospect of themselves and their children being included in the future (Atkinson, 1998). In short, the dynamics determine whether the person in question feels empowered and therefore finds it possible to change the situation of themselves and their social group. As this may change over time, it can be perceived in a longitudinal study.

4.1 Menstrual Inclusion

Menstrual Inclusion regards women's and girls' social inclusion when menstruating, using the indicators of relativity, agency, dynamics, and discreditable and discredited stigma. The concepts of stigma (Goffman, 1969) and social inclusion (Oxoby, 2009) are intertwined regarding menstruation in the global south. Discredited stigma affects the individual's relativity, due to the stigma theory. The discreditable stigma hinders the individual's agency, which in turn affects the amount of leeway in which girls and women can challenge the discredited stigma they face, concerning both agency and relativity. Dynamics is an indicator of the ongoing, grand societal process. Hence, Menstrual Inclusion provides a comprehensive and rich framework from which to determine the impact of the interventions.

Despite the scholarly focus on school attendance, the literature supports that the CSBI will affect girls' Menstrual Inclusion: Girls access to school grounds is well documented, (Beksinska et al., 2015, Aniebue et al., 2009, Madiziyire et al., 2018, Phillip-Howard et al., 2016, Montgomery et al., 2012) and some studies indicate that the products help them concentrate in school (Mason et al., 2013, Hyttel et al., 2017). Some studies indicate that the MHMPs facilitate girls' engagement in

work, sports, and social activities (Hyttel et al., 2017, Sommer, 2010, Madizieyire et al., 2018 and Hennegan et al., 2016). These are all operational indicators for relativity. The literature on SSA encounters discreditable stigma, but there is very little evidence on discredited stigma, why it remains unknown how the CSBI affects this. As India's stigma theory include discredited stigma concerning periods (see 3, Background) this study will highlight if the CSBI has any effect on this. There are grounds to believe that the CSBI empowers girls and their surrounding community to break down the discreditable stigma, as studies have shown that education breaks taboos, opens up discussion, improves peer relations and creates more supportive environments (McMahon et al., 2011; Aniebue et al., 2019; Montgomery et al., 2012). Hence, the model affects both insurer's and insuree's agency. Dynamics is a rather abstract concept and therefore the hardest indicator to quantify, and there are very limited grounds in the literature to support that the CSBI will affect this. However, the literature shows that girls' mental health, confidence, self-worth, and empowerment levels rise, as an effect of CSBI, which could be indicators of dynamics. (Scott et al., 2011, Hyttel et al, 2017).

Hence, the research from SSA shows a positive relationship between CSBI and girls' Menstrual Inclusion. This study aims to explore how appropriate the CSBI is in the Indian context in order to contribute to the discussion on how to facilitate girls' Menstrual Inclusion. To do this, the study tested the CSBI in the case of Kherwara, India, using the conceptual framework of Menstrual Inclusion.

5 Methods

This chapter addresses the theory of science in order to position and describe the research design adopted in this thesis. Furthermore, it will highlight the weaknesses and strengths of the chosen methodological approaches.

Positivism argues that studies need strict dichotomy between the researcher and subject as a prerequisite for objectivity, and that impersonal, neutral detachment is a criterion for good research (England, 1994). According to Bourke, (2014), pure objectivism in social research is a naïve quest, as the researcher's subjectivity will affect both the process of conducting interviews and deciphering the data (Bouke, 2014). This research takes a constructivist stance. Feminism acknowledges the pervasive influence of gender relations, and the values and politics of science (Punch, 2005, 136). Feminist research methodologies emphasize non-hierarchical interaction, understanding, and mutual learning processes (Sultana, 2007). Feminist research has emancipation as a goal. Therefore, feminist research often commits to action, although not all action research is feminist (Punch, 2005, 137). According to Reinharz's (1992) demystification framework, the act of obtaining knowledge creates the potential for change as the lack of research accentuates and perpetuates the researched group's powerlessness and lack of influence, as their needs and behavior are not understood (Reinharz, 1992, 191). Following this logic, action research in the realm of Menstrual Inclusion has the potential to create an environment in which women and girls have more influence on the conditions under which they live. The study can verify this, as some respondents broke the discreditable stigma by educating other girls on MHM.

As the researcher is the core instrument for data collection, it is critical to examine the power relations and politics of the research process and the researcher's position (Scheyvens, 2014, 61). Sultana (2007) argues that researchers must be especially aware of their positionality when researching in the global south, as settings of equality, class, literacy, and accesses create a different context for research and the consequent power relations (Sultana, 2007).

The researcher of this study is a foreigner and viewed by the local community to be Christian. The community in Kherwara calls Caucasian people *anglaise*. This discourse is showing a close affiliation between being Caucasian and colonization. The study is exploring taboos on menstruation, which is related to Hinduism's stigma theory (Goffman, 1969). This clash of local understandings, the research topic, and the researcher's ethnical origin is effectively making the

researcher an outsider. Furthermore, the researcher is the Vice President of DKM, a role which implies certain power relations.

Attempts were made to overcome these relations of power and *otherness* (Lal in Sultana, 2007, 5) by adapting the dress, behavior, and body language to local standards. Modest, traditional clothes were worn, (primarily the *salvar suit*), jewelry taken off and hair worn in a braid instead of the usual topknot (see figure 6).

Figure 6 The researcher in a *salvar suit*. Picture borrowed from Danish Kherwara Misison's facebook page.

In the introduction to the interviews, the study's reliance on the knowledge of the subject was highlighted. This was done to emphasize their power in the research relationship (England, 1994). However, as England, (1994) notes, being sensitive to positionality and power relations does not remove them (ibid). Despite the best effort to overcome or circumvent the power relations, it is evident in the data, as the study encounter response bias. This will be discussed in full later in this chapter.

The positionality of this researcher does not only hinder the study and the reliability of the data. Before this study, the researcher had visited the ASGH on multiple occasions. This facilitated access to the field, as the girls and the staff knew the researcher personally and were comfortable around her. The girls call the researcher didi or sister. This close relationship facilitated the trust between the researcher and the participants, something that multiple scholars argue is paramount to

conduct qualitative research on sensitive subjects (ie. Sultana, 2007; England, 1994; and Scheyvens, 2014). This is evident in the data as well, as the girls who had a closer relationship with the researcher, were more open and conveyed more personal information, resulting in richer data.

The positionality includes the translators as well. For the baseline, a female outsider translated. For the follow-up study, a more participatory approach was taken, as the girls were asked to name the translator of their choice. They chose the warden's daughter, which was surprising, considering her position. However, the choice was respected for the study. The positionality of the translator may affect the findings, as the girls seemed more comfortable with the second translator and relayed more personal information during the follow-up study. This highlights the importance of trust between the subject and the researcher and translator when researching sensitive matters.

5.1 Intervention Design

In January 2019, the researcher educated two volunteers in reproductive health, MHM, and the specific MHMPs for the program. After this, all menarched girls at ASGH received education in these themes (See figure 7). MHMPs, consisting of conventional pads, menstrual cups, and cloth pads and tampons were distributed to fourteen girls. They were instructed in small groups on how to use and care for their respective products. Throughout the education and distribution of products it was highlighted that the girls who received products were not expected to partake in the study. In October 2019, the girls partook in an educational follow-up session. At this point, the researcher was not present.

Figure 7 The educational seminar at All Saints Girls Hostel, 27th of January, 2019. The picture is borrowed from the Danish Kherwara Mission's facebook-page.

In preparation for the study the researcher arranged a meeting with a board member of the Danish civil-society organization WOMENA, which works with MHM in resource-poor settings (Womena, 2020). The board member's advice was incorporated into the program. For instance, she highlighted the importance of peer support to facilitate a safe and comfortable uptake of the products. Because the ASGH's hierarchical structure and daily operation rely on *didis,* this seemed plausible. In the same vein, mothers were excluded from this pilot study for two reasons: firstly, they were viewed as secondary support by WOMENA, secondly, because of practical aspects as the mothers live in a radius of up to two hours' drive from ASGH. This group was included in a later stage of the research (see 5.3,1, sample).

The study implements the CSBI, but during the spring of 2019 the BDTA donated an incinerator to the ASGH. (see figure 8). An incinerator works by burning individual pads using electricity. As this is a component to WASH, this weakens the reliability of the study. The insinuator and other WASH-facilities' effect on the respondents' Menstrual Inclusion is addressed in 7.4, CSBI shortcomings.

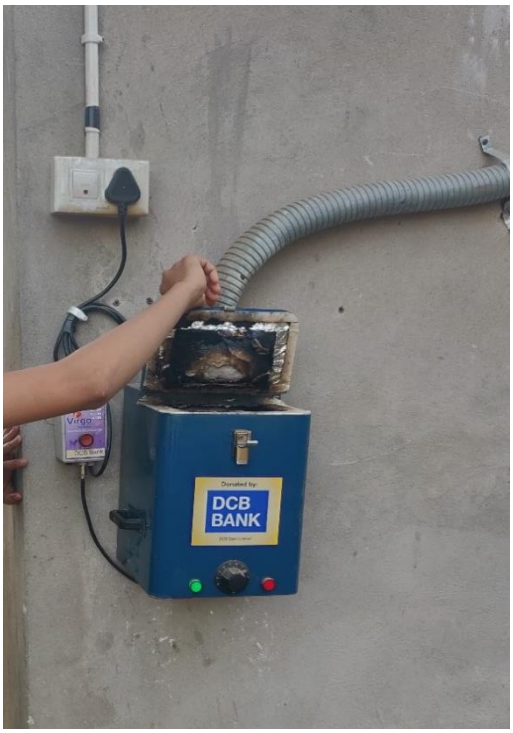

Figure 8 The incinerator. It works by burning pads individually, using an electrical charge. The smoke is led away by the tube to the right.

5.2 Study Design

This study aims to test the CSBI in a different context than SSA. Theory testing begins with theory and the theory guide the observations and design. According to DeVaus the "*observations should provide a test for the worth of the theory*" (DeVaus, 2001, 6), following the logic that "*if this theory is true, then certain things should follow*" (Devaus, 2001, 7). So, if the CSBI is appropriate in the Indian context and creates Menstrual Inclusion, we will witness a gain in agency, access to institutions and social spheres, and less dependency on discreditable and discredited stigma.

The study is a piece of action research, using an instrumental case study. The goal of a case study is to develop a full understanding while recognizing its complexity and context (Punch, 2005, 144). According to Miles and Huberman (1994), a case is a phenomenon that happens in a bounded context. This research uses the case of All Saints Girls' Hostel, Kherwara. As the same participants

of the study are followed over a time frame of a year, the study is a longitudinal, cohort study. Data is collected at two points: through a baseline-study in January 2019 and the follow-up study in the spring of 2020. As the goal of this study is to build and refine theory, this case is used instrumentally, (methods.sagepub.com).

Action research is a technique to "*enquire information having practical application to the solution of specific problems*" (Punch, 2005, 160). The research is directed at changing people's behavior or mentality while simultaneously gathering and analyzing data on the process. Action research is cyclical, following the idea that one intervention is not the end of the process, but rather the start of a cycle of action research on the topic (Punch, 2005, 161). This study is the beginning of such a spiral, through exploring and providing adaptions for the CSBI.

5.2.1 Sample

The sample consists of girls from ASGH, Kherwara, and in the follow-up study, mothers from a neighboring village. To mitigate the potential of participants missing in the follow-up study, only girls who had lived at ASGH for more than two years, and who had a full year left of their studies, were eligible for the intervention. From this group, more girls volunteered than products available. Fourteen girls were randomly selected to test whichever product they chose. Four girls received conventional pads, eight were given menstrual cups, and two girls were given cloth pads and tampons. As will be explained and discussed later, very few of the girls had a successful uptake of the menstrual cup. Their experiences with other MHMPs (conventional pads, school pads, and cloth) have been included in this study.

Due to ethical considerations and formal restrictions from Lund University, only those over the age of fifteen could participate in the follow-up study without parental consent. This limited the sample to eleven girls. Nine girls partook in the focus group interviews that amounts to the baseline, and eight girls agreed to be interviewed individually for the follow-up study. This is only a small sample of adolescent girls in India. To facilitate internal validity, a member checking session was applied to check the findings **(**Cresswell, 2014, 251**)**. The respondents of this session also volunteered to do so. The volunteer aspect of the sampling skews the data, as girls who were not able or willing to discuss their periods due to the discreditable stigma did not partake in the study. The sample consists of the girls less affected by discreditable stigma, making the data less representative. Ethically speaking, you cannot force participants to partake in a study. Therefore, all studies from SSA relies on volunteering participants. Hence, the skewing of the data due to ethical

considerations does not affect the comparability of the study, as it is a constant error (DeVaus, 2001, 32), and therefore should not affect the conclusions.

Because of the small sample of the program, only two girls tested reusable cloth pads and tampons. Unfortunately, one of the girls had been transferred to another hostel. Despite substantial detective work, it was not possible to get in contact with her. Similarly, the study assesses a small sample for the cup, as only two girls had a successful uptake. The conclusions about education and Menstrual Inclusion were verified through the member-checking session, but the specific data on MHMPs relies on very few girls' statements and experiences. This small sample must be considered when addressing the product-related findings.

All girls in the follow-up study mentioned their mothers as the primary agency-giver. One girl was even forbidden to use the cup because her mother said she was "*too small*" (Lilly, 06-02-20). Therefore, it was deemed relevant to include the mothers in the study. However, because of the warden's capacity, the huge geographical area the girls are from, and that the fieldwork was conducted in one of the busiest times a year for farmers, inviting the girls' mothers to partake in the study did not seem like a viable option. Instead, the study includes a group of twelve mothers from a neighboring village, who all have daughters. The mothers of the group represented women of different ages, religions, and castes. They were all from the social group scheduled tribes, and most of them were illiterate. Two of the women wore a *ghoongat*[3] in public, a traditional practice that is still applied in the villages. This group is deemed representative of the mothers of the girls from ASGH.

5.2.2 Time Frame

Most of the intervention-studies from SSA use a time frame of five months or less (Montgomery et al., 2012; Hyttel et al., 2017; Beksinska et al., 2015; Madiziyire et al., 2018). In comparison, this study ran over a full year. Sarah had a successful uptake of cloth pads and tampons, but stopped using them after six months because of a lack of privacy in the new buildings. (Sarah, 15-02-20) Similarly, two girls stopped using the cup after some time, one after three months (Deena, 03-03-20) and one after half a year of usage (Karishma, 29-02-20). If this study had used the same time frame as the SSA studies, the findings had been more supportive of CSBI's effect on Menstrual Inclusion, as three more girls would have had a successful uptake of their products. As the aim of

[3] A veil that covers the person's face completely.

this study is to contribute to the debate on Menstrual Inclusion, this means that the time frame of the respective studies makes it harder to compare results across continents. This must be considered when assessing the conclusions of this study.

Philip-Howard et al. (2016) argue that long-term studies are needed to determine the results of MHM-interventions (Philip-Howard et al., 2016). Montgomery et al. (2012) support this, as their study showed a behavioral change in the training-only control group after 5 months (Montgomery et al., 2012). It is reasonable to think that girls' social, physical, and educational conditions change during their teenage years, so three months is insufficient to determine their uptake and change in behavioral patterns. This study can, therefore, support Phillip-Howard et al.'s call for long term studies on MHM interventions (Phillip-Howard et al., 2016).

However, the time frame makes confounding variables more prominent. The respondents explained how they received menstrual education in school in school during the study period. There are very limited grounds to decipher whether the participants experienced more Menstrual Inclusion due to the CSBI's training session or the one at the school. As the training in school was carried out by actors in civil society, this issue was overcome by including both training forms as part of the education variable in the CSBI. On a greater scale, Yagnik (2013) and Singh (2019) both argue that social media and Bollywood movies on the topic of menstruation are creating a more supportive environment in India, facilitating Menstrual Inclusion (Yagnik, 2013; Singh, 2019). This study assumes very limited influence from movies and social media, as the participants of the study have limited access to such platforms, but there is no way of knowing if the formal, middle-class authorities such as teachers, the matron, and the warden may have been affected by this. This exploratory study will need replication, for which it would be advisable to include and manage these confounding variables better.

5.2.3 Data-Collection and Analysis

Action research is known to use a plethora of techniques for data collection. This study used Focus Group Discussions (FGDs), in-depth semi-structured interviews, and qualitative observation. The study utilizes semi-structured interviews as this approach allows the researcher to guide the conversation while leaving space for the participants' anecdotes and interpretations.

For the baseline interviews this study utilizes the method of FGDs. The method should be less intrusive, and therefore creates a more natural and comfortable situation for the participants, making

it especially appropriate for discussing sensitive topics (Punch, 2005, 173 Scheyvens, 2014, 62) Other studies have a great experience with this method of data collection when assessing menstruation (ie. Sommer, 2010; Mason et al., 2013). This was the experience when interviewing the mothers, as the setting facilitated lively discussions about menstruation and products (Mothers, Aspur, 07-02-20). However, the girls in the baseline giggled nervously and seemed slightly uncomfortable. Their answers were short, and the translator sometimes had to drag out answers, by asking yes and no questions (Baseline 1 and 2, 27-01-19). This may be because of the positionality of both the researcher and the translator, the setting, the subject matter, or the overwhelming break of the discreditable stigma by the whole situation. Nevertheless, the follow-up study was conducted through in-depth personal interviews instead. In-depth interviews bear "*characteristics of a prolonged and intimate conversation*" (Punch, 2005, 172), which was deemed appropriate to fully understand the girls' situation. After the first interview, the respondent was asked if she preferred FGDs. She argued that in bigger groups, the girls would "*laugh and hide*", why she liked personal interviews better (Lilly, 06-02-20). As a result, the data gathered through personal interviews show a deeper complexity than the FGDs. However, this change in methods has complicated the comparison of the data: In the follow-up study, all girls except Karishma (29-02-20), agreed wholeheartedly that the crops would not die if they stepped into the field while menstruating. In the baseline, the answer was the same, but the girls were more hesitant, and some kept quiet and looked down (field notes, 27-01-19). The recorded demeanor and answers may show developments of opinions and be an indicator of dynamics, but it may also be a result of the different social expectations and pressures of a group situation versus a personal interview. As the goal of a longitudinal case study is to compare developments between points in time, the difference in data-collection methods creates insecurity in the data, as it leaves too much to be interpreted by the researcher.

Other than interviews, the study is also utilizing qualitative observations. Qualitative observations are field notes on the behavior and activities of individuals at the site (Cresswell, 2014, 239). These can also include casual conversations (Cresswell, 2014, 239). In this case, the researcher experienced hesitation to answer any questions if a notebook was within arm's reach. Therefore, observations were conducted with the field notes written down at a later point. This lowers the quality of the data collected through observations but was necessary to obtain valuable information.

To ensure the internal validity of the study, member checking was applied in the field. This is done by asking the participants to assess the findings from the study (Cresswell, 2014, 251). With the positionality of the researcher, this was also done to lower the reliance on the researcher's subjectivity and opinions of the data. The member checking session included both girls who participated in the study and girls who did not, and major findings and themes were discussed (all personal information was strictly withheld, and only general conclusions were discussed). Member checking sessions are usually carried out to ensure internal validity, but this member checking session developed into a focus group discussion, in which girls would freely provide new insights and anecdotes. Because of this, the member checking session is included as a method of data collection.

The analysis of the data was done by using Miles and Huberman's framework of data reduction and display and drawing and verifying conclusions (Miles and Huberman in Punch, 2005, 197). These processes happen intertwined and simultaneously, as one leads to the other in feedback loops (ibid). This research used verbatim transcription and coding, memoing, abstracting, and comparing to analyze the data. Research is not a linear process, and the analysis of the data can help guide the subsequent data collection (Sceyvens, 2014, 75; Cresswell, 2014, 245; Strauss and Corbin in Bourke, 2014). This was the case of this study as well, as early stages of data analysis highlighted lacking data, which could be addressed when returning to the field.

As this study attempt to test the CSBI, the data was analyzed using deductive, thematical analysis, by looking for specific themes in the data (DeVaus, 2001, 24). Hence, this study used primarily predetermined codes. These derive from the nominal indicators of a high abstraction level, which has been converted into operational indicators, that can be measured in the field (Devaus, 2001, 24). This study uses the nominal indicators of Menstrual Inclusion. From these, more palpable, operational indicators have been derived. For instance, the girls' relativity is measured by their access to institutions such as temples and school grounds.

According to Cresswell (2014), one of the biggest pitfalls when analyzing data is consistency in the codes, as definitions can develop over time. (Cresswell, 2014, 249). To make sure the codes for the analysis were consistent throughout the analytical process, a qualitative codebook was developed with descriptions of indicators and codes.

5.2.4 Bias and Self-Reported Data

The study encountered multiple examples of response bias and issues of self-reporting. According to the respondents, their mothers approve of their provided MHMPs. However, a deeper analysis of the interviews revealed that only one girl had discussed her MHMP with her mother. Similarly, all respondents who had a successful uptake of their products preferred their respective MHMPs, and would recommend others to use them over conventional pads (Sarah, 15-02-20; Karishma, 29-03-20; Mamtha, 04-03-20). This is especially suspicious with Sarah, as Hennegan et al., (2016) found that girls using this method had to change their pads more often and had more leaks than when using conventional pads (Hennegan et al., 2016).

Although this study is assessed through Menstrual Inclusion rather than school absenteeism, access to school grounds is assessed as an indicator of relativity. According to the respondents, they went to school every day of their periods despite the pain, fear of leaks, missing MHMPs, etc. Only one respondent mentioned having stayed home *"one-two-three times"* because of fear of leaks (Hannah, 29-02-20) and one girl admitted having gone home from school because of pain, but stressed that she has never stayed at home because of it (Karishma, 29-02-20). Most of the respondents reported that their friends were absent sometimes, and observations confirm that the many of the boarders at ASGH stay at home one or two days during their periods (e.g. field notes, 10-02-20) Hence, the study shows a difference in self-reported data and observed actions. Unreliable, self-reported data is a known problem to the literature as it has been witnessed in multiple studies in the SSA (Chrichton et al., 2013; Henegan et al., 2016; Mason et al., 2013 and Philip Howards et al., 2016). Self-reporting and response bias contribute to insecure data and affect the internal and external validity of the study. As this is the same in both regions, it is a *constant error* (DeVaus, 2001, 32), and will not affect the comparability between regions. However, this makes it difficult to determine the usefulness of CSBI and the framework of Menstrual Inclusion. Hence, replication in different contexts is needed to make more solid conclusions.

6 Findings

This section will showcase the findings from this study. Firstly, it will describe the girls' stigma to explain the sociological context they must navigate in their daily lives. Secondly, it will assess the impact of CSBI, using the operational indicators from the conceptual framework of Menstrual Inclusion. As the respondents' characteristics affect their Menstrual Inclusion, please regard Appendix A for a description of the individual respondents.

6.1 Stigma

The girls' Menstrual Inclusion depends greatly on their religious orientation. Whereas Christian girls have no restrictions imposed on them, Hinduism's discredited stigma theory brings certain limitations to the girls' access to institutions, places, activities, and social spheres. The girls are "*not holy at the time*" of menstruation (Baseline 2, 27-01-19), why they are denied access into the temple, cannot cook or fetch water, nor touch other people's food, water or utensils (Baseline 1 and 2, 27-01-19; Lilly, 06-02-20; Maniksha, 15-02-20; Karishma, 19-02-20 and Deena, 03-02-20). Menstruating girls and women are prohibited from entering the fields, as "*the flower will die and the grains will also become dry*" if they do. (Baseline 1, 27-01-19) Additionally, one Hindu girl in the member checking session stated that she is not allowed inside her house when she is on her period (member-checking, 08-03-20). Hence, this study can confirm that Hindu girls are discredited due to their status as menstruating and that religion is used as the stigma-theory.

The newly-converted Christian girls show an interesting insight in how deeply rooted the religious taboos are: Diya had gone to church once during her period, but related how she felt unsure of herself, as she did not know if she was allowed inside or not (Diya, 15-03-20). Even though her whole family has converted to Christianity, her mother and grandmother still do not allow her in the kitchen and the field when she is menstruating (Diya, 15-03-20). Mamtha, on the other hand, did not experience this stigma but was unsure if her mother had changed the old behavior patterns (Mamtha, Kherwara, 04-03-20). It is interesting to see how the restrictions take time to wear off, even after converting to Christianity, where the discredited stigma theory is no longer relevant.

With few exceptions, the girls do not discuss their periods, products, and issues related hereof with anyone in their social sphere, including family members, friends, teachers, bhais, the matron, etc. In the baseline, when asking what they knew about other people's MHM, one girl answered "*I don't know about my mother*" (Baseline 1, 27-01-19) The girls who had talked to their friends and female

family members would not relate when or what they had discussed. Some of them became uncomfortable and one girl even lashed out when asked: **"***What what what? I don't remember!" (*Mamtha, Kherwara, 04-03-20). Hence the topic of menstruation is deeply discreditable.

Some of the girls had an idea about what would happen to them, as they had overheard conversations about periods (Sarah, 15-02-20; Deena, 03-03-20). Deena had seen the other girls' cloth hanging to dry in the bathroom but did not ask anyone about it. When asked why, the question seemed strange to her and repeated that "*we don't ask anyone*" (Deena, 03-03-20; field notes, 03-03-20). Only one of the girls in the study were informed directly about periods before menarche. The practices and stigmas are held secret until the day of menarche. It seems that womanhood is a social sphere, to which access is granted through menarche. This results in some traumatic experiences, as one girl in the baseline related that she thought she was "*heavily injured*" (baseline 1, Kherwara, 27-01-19), and Diya cried because she was afraid. (Diya, 15-02-20). Karishma had no idea what was coming for her, as she asked her mother "*I got something. I am bleeding. What is this?*" (Karishma, 29-03-20).

6.2 Products

In this section, the MHMP-part of the CSBI will be addressed. First, issues of uptake and preference will be highlighted. Hereafter, it will be discussed how the product provision affects the respondents' Menstrual Inclusion.

Cloth is used by all the mothers of the focus group interview (Mothers, Aspur, 07-02-20), but in the younger generation, this method is disappearing. In the baseline, two girls used a mix of cloth and pads, one reported to have used it at menarche, and the remainder reported to have used pads only (baseline 1 and 2, 27-01-19). One year later, only one girl related to having ever used the MHMP (Deena, 03-03-20). As periods and products are generally not discussed amongst the girls and their family members, Karishma, the youngest girl of the study, did not even mention this MHMP in her interview. Deena, the oldest girl of the follow-up study, explained that when she was younger, the girls in ASGH would wash the cloth in the toilet stalls and hang it to dry in the bathroom. As there are very limited sunshine and air-movement in the bathroom, she would sometimes use the cloth before properly dry. Both her and the girls in the baseline interviews reported rashes and discomfort and leaks from using this method. Deena no longer uses cloth as the government provides pads and she can afford to buy pads to make up for the shortage. (Deena, 03-03-20)

All the participants of the intervention receive pads through the Menstrual Health Scheme, but they are given one to two packages per month. All girls reported having to buy pads themselves as well. Diya preferred the market pads, and reported no rashes, discomfort, or leaks from this method, and claimed the product did not restrict her mobility (Diya, 15-02-20). She did not criticize the government pads, but other respondents did: "*They are too small. It's not good. It's not good material. [blood] comes out. And also [I] get rashes because of the heat*" (Lilly, 06-02-20). Mamtha stated that she could not sleep or sit properly from using the pads (Mamtha, 04-03.20). All the girls who used pads preferred this method, but the girls who had successful uptake of other products (Sarah, 15-02-20; Hannah 29-02-20, Mamtha, 04-03-20) preferred their respective methods.

Sarah generally praised the cloth pads and tampons and reported no rashes or irritation from using them (Sarah, 15-03-20). She used the products at home, in the hostel, and at school. As one of the only respondents, she has changed her MHMP in school and reported no problems with this about the product. She was especially fond of the tampon as the "*tampon is small, and pad is big. So, it is easy to wash tampon*" (Sarah, 15-02-20). However, she has discontinued the use of the products after the girls have shifted into the temporary buildings. In the old hostel, she hung the products to dry behind the "old bathroom", an abandoned building where no one would go, but in the new building, she reported that there is no such place for her (Sarah, 15-02-20).

The menstrual cup represented the biggest problem in uptake for the girls. Of the six girls who agreed to be interviewed in the follow-up study, only two girls used the cup by the end of the project period. Two girls discontinued the use of the product. One of them used it wrong (Deena, 03-03-20). The other (Karishma) refused to elaborate on why she discontinued the use (Karishma, 29-02-20). One girl refrained from trying her cup, as she was "*afraid*" to use it (Maniksha, 15-02-20). Lilly did not use the cup, after discussing it with her mom: "*my mother say: 'No, don't use this, you are small.*'" (Lilly, 06-02-20). Lilly added that she can use the cup after she is married (Lilly, 06-02-20). None of the youth trainers were using their provided cups either, one of them stating that she had a "*medical problem*" (field notes, Skype meeting, 20-10-19). One could speculate that Lilly and the youth trainers did not use the menstrual cups because of the cultural perceptions of the hymen. However, this was not confirmed during the field study.

All respondents agreed that more education would have helped their uptake, as they stated they had no-one to talk to about their issues, due to the discreditable stigma. All the girls who did not have a

successful uptake agreed that more education would have facilitated their uptake. The girls also agreed that if their mothers used the product, it would have helped their uptake greatly.

6.2.1 Products and Menstrual Inclusion

The girls agree that product provision helps girls' Menstrual Inclusion, as it facilitates their access to institutions and social spheres: "*I'm saying that in school it is good that the government gives pads to girls because some girls they don't have money to buy pads. They are so poor*" (Maniksha, 15-02-20). Deena relates that she would be absent from school when she was younger, because she could not afford pads (Deena, 03-03-20), and one girl related how she did not go to school because she did not have any (field notes, 25-01-19). The overall access to MHMPs seems tremendously important for the girls' Menstrual Inclusion, especially the indicator relativity.

The pad users claimed to go to school regardless of using market pads or government pads. Sarah, who received cloth tampons and pads, had the same experience. All participants reported going to school and the market, playing cricket, washing their clothes, doing homework, being with their friends, etc., regardless of their MHMP. There are social spheres, activities, and institutions that the respondents are barred access to, and the respondents indicate that the ease and comfort of activities may be affected by the products, but there are no significant indicators that their relativity and therefore, Menstrual Inclusion, depend on the specific MHMPs they use. The only exception is the menstrual cup. The girls who had a successful uptake of the menstrual cup claim that this MHMP is more comfortable (Mamtha, 04-03-20; Hannah, 29-02-20). Hannah related having missed school a handful of times before using the cup, as she was afraid of leaks (Hannah, 29-02-20). Furthermore, one girl in the baseline stated that she did not have a dustbin in her school bathroom, an issue that could potentially be circumvented by the cup (Baseline 1, 27-01-19).

There is no sign that the product provision has affected the girls' dynamics. As Hannah states "*I like the cup, it's better, but I still don't like my period*" (Hannah, 29-02-20). There are no indicators that the products have affected the participants' opinion towards periods or how they feel about their prospects to be included in the future.

The girls' statements and experience make it clear that general access to MHMP facilitates girls' Menstrual Inclusion, especially concerning relativity. According to the girls' perceptions, there seems to be no difference between their Menstrual Inclusion based on the different products. However, there are slight indicators that the menstrual cup may facilitate Menstrual Inclusion, as it

may circumvents inadequate WASH-facilities, and discreditable stigma related to leaks and disposal of the MHMP in public spaces.

6.3 Education

Mothers are the primary source of information for the respondents, but due to the topic being discreditable, the girls do not discuss menstruation with their family members unless prompted to. Additionally, the mothers of the study had a very poor understanding of periods and reproductive health. As one woman stated: "*We are illiterate women. How can we know about these things?*" (Mothers, Aspur, 07-02-20). The girls received menstrual education as part of the CSBI, and some of the girls reported to have experienced training in school during the intervention period. This is the very first time the girls have been educated in school (Lilly, 06-02-20; Sarah, 15-02-20; Deena, 03-03-20). This section will highlight how the educational component of CSBI has affected the respondents' Menstrual Inclusion.

6.3.1 Education and Relativity

As discussed in 6.1, stigma, the study found that the girls' access to institutions, social spheres, and activities are dictated by the discredited stigmas. These stigmas are stagnant, as they do not change over the study period. Hence, the CSBI has not changed the girls' relativity directly. However, there are indicators that these may be affected indirectly, through agency.

6.3.2 Education and Agency

This study identifies three forms of agency that affect the respondents' Menstrual Inclusion. The first form is the agency of elders, namely authority figures at home and in ASGH. The second form of agency is intrapersonal agency, which addresses to which degree the girl permit herself to do certain activities. The third form of agency is extra-personal agency, how the girls use their agency over each other. This section will address the three forms of agency, and how the power may or may not have changed during the study period.

None of the participants of the study knew how the Maharaj prescribes women and girls should behave on their periods. Instead, all the Hindu girls in the study ascribed this agency to mothers and other female elders, as they taught the girls how to behave as discredited women. Therefore, female elders are the primary agency-holder to the adolescent girls in the study, especially the Hindu ones. There are no indicators from this study that the CSBI affects the agency of the female elders or the stigmas they impose. However, they were not part of the intervention either.

The girls do not talk to men about their periods, not even their fathers: as Hannah stated: "*In our village, we don't talk [about] these things to our father"* (Hannah, 29-02-20). The girls who did have encounters with men, remembered them in vivid details, insinuating that the encounter was unique and transcendent (Maniksha, 15-02-20, Diya, 15-03-20, Karishma, 29-02-20). When asking Mamtha how she would feel if boys and men partook in the educational sessions, her answer was clear: "*what will they do with these things? Why would they have to learn this?*" (Mamtha, 04-03-20). The notion seemed silly to her. Hence, men have very little agency regarding MHM and Menstrual Inclusion. From the respondents' perceptions and observations, it seems that neither female nor male elders' opinions and agency concerning menstruation has changed over the program period. They were not educated for this study either. Female elders' agency has proven important to the girls' Menstrual Inclusion, and they should be included in future studies.

Regarding the intrapersonal agency, seven out of eight girls in the follow-up study question the stigmas imposed on them. Karishma's father is a *Maharaj*[4], which may explain her approval. The girls are finding ways to circumvent the restrictions. Diya honors the restrictions whenever her female family members are around (Diya, 15-02-20). But as she states "*when [the elders] are not there, I do whatever I want. I cook, I eat.. all things*". (Diya, Kherwara, 29-02-20). This was confirmed through the member checking as all girls agreed they do not follow the restrictions unless an elder is looking or being affected by their actions (i.e. by eating food that they cooked). This part of the intrapersonal agency seems to have changed in the program period. None of the girls in the baseline interviews stated that they avoided the rules when possible. The question *"what do you think about the stigmas*?" was followed by a deep silence, and the question seemed absurd to them (baseline 1 and 2, Kherwara, 27-01-19). When asking the girls in the member checking session one year later, they laughed and clapped each other's hands, and referred to how they avoided the rules whenever they can (member checking, 08-02-20). This indicates that the CSBI has affected the girls' intrapersonal agency.

The girls have very little extra-personal agency to stand up against female elders and the staff at the hostel. When the matron told the girls to throw the pads in the toilets, the girls knew instinctively this was wrong. However, none of them spoke up, neither to the matron, staff, or other girls. As Hannah stated "*if we speak, or tell her, she will get angry with me"* (Hannah, Kherwara, 29-02-20). This lack of agency does not just cover discreditable topics. Before Mamtha's interview, the

[4] A religious leader within Hinduism

researcher discussed the betterment of the living quarters with the matron with Mamtha present. In her interview, Mamtha related that she did not speak, because she "*don't want to disturb you and [the matron]*" (Mamtha, Kherwara, 04-03-20). Hence, the girls' lack of agency towards authority figures is not due to the topic being discreditable, but rather a symbol of the societal structure and the expectations to young girls in general. As this is an underlying social structure, it has not been addressed by the CSBI.

The girls hold agency towards each other which is shown through the example of *didis*. Hannah and Deena have opened up the discussion on periods and teach the other girls at ASGH about MHM. They involve girls who have not reached menarche as well (Hannah, 29-02-20; Deena, 03-03-20). Hannah is Christian, and Deena is Hindu. There were no indicators from their interviews that their agency depended on their religious orientation or the stigmas imposed on them. According to the respondents' statements, menstrual education has been impactful to their extra-personal agency: Both Deena and Hannah were encouraged by the educators in school to educate others. "*In our school, some doctors came and had sessions. So, they told us, not to be shy, that everyone get their periods. So, we have to talk to [the small girls] about how they feel, and [what] they get"* (Deena, 03-03-20) Hannah accredits the menstrual educators that she is able to do teach the other girls in the hostel: "*In my school, they told us that the girls who are going to have periods, we should talk to them and tell them what it is"* (Hannah, 29-02-20). Hence, the study finds that the girls have gained extra-personal agency in the program period, and there are grounds to believe that it is because of the CSBI. However, there is a geographical border to their agency, as both girls stated that they were not able to discuss menstruation in school or at home (Hannah, 29-02-20 and Deena, 03-03-20).

The girls' statements prove that education can facilitate Menstrual Inclusion. The intrapersonal and extra-personal agency of the girls has changed in the study period, indicating that the CSBI has affected their Menstrual Inclusion. Respondents at ASGH and the mothers agree that this finding would be transferable to other age groups. Education of the external groups seems important, as there is no spillover from the girls to their agency holders.

6.3.3 Education and Dynamics

This study witnesses an intergenerational shift concerning the discredited stigma. Lilly stated that her mother follows the stigmas because she "*has done this thing since she was on her first period. Her mother also told her to don't go there, don't go there, don't go there. So now she's following*

only." (Lilly, 06-02-20). Other girls found this sentiment logical, although they had not discussed the topic with their female elders (Maniksha, 15-02-20; Deena, 03-03-20; Mamtha, 04-03-20). So, according to the girls, their mothers are stuck in traditional society's norms. This is changing, as most of the girls in the study voiced frustration towards the religious restrictions. In the baseline, one girl stated that when she is on her period at home, she would cry from frustration and anger towards the imposed stigmas (Baseline 2, 27-01-20) The girls in the personal interviews were more outspoken, as all except for one girl from the follow-up study voiced disagreement with the stigmas. As Maniksha argues "*Why don't they allow us to do this thing? It's nothing. We can go to the temple also, and field also, and cook! [menstruation] is nothing bad"* (Maniksha, 15-02-20). Lilly agrees: "*It's not good. We are not bad, and we're not doing anything wrong"* (Lilly, 06-02-20).

At the follow-up study, seven out of eight girls would not instruct their potential daughter to follow the stigmas. The last girl was unsure (Karishma, 29-02-20). Some of the girls even laughed. It is hard to know if this shift is due to the CSBI, or other, confounding variables. It may also be due to a measurement error, as the baseline's hesitation can be accredited to the social pressure of a group setting. However, we can determine that there is an inter-generational shift in women's behavior patterns and their opinion towards the stigmas. This is a clear sign of the dynamics, that will bring the development towards more Menstrual Inclusion in the future. But the infliction of the CSBI is unclear.

The girls generally agree that they cannot talk to anyone about their periods, because it is discreditable. Some of the girls were hesitant to answer even simple questions and the interview-situation made some of the girls slightly uncomfortable. This resulted in two interviews having to be cut short (Sarah, 15-02-20, and Karishma, 29-02-20). On the other hand, two girls have become informal educators, breaking the discreditable stigma. The stigma is complicated, as shown by Diya's experience. She feels obliged not to discuss her period but stated that she "*would like to teach girls in my village about periods. To give knowledge to them about periods*" (Diya, 15-02-20). She argued that she got the idea from the CSBI. "*Last year I saw you teach us. And I thought it would be nice to teach my village*" Hence, the educational component of the CSBI has changed the girl's view on menstruation and the dynamics, as they would like to change other girls' and women's thinking about periods. However, there is still a long way to go, as many of the girls feel uncomfortable even mentioning menstruation.

The study shows a clear, intergenerational divide concerning the discredited stigma, as girls are trying to circumvent them, and state that they will not impose them on their daughters. Furthermore, the study indicates that discreditable stigma may be challenged. However, it is hard to determine to which degree this is accredited to the CSBI, due to potential confounding variables and the change of data collection-method.

7 Discussion

As the aim of this thesis is to test the CSBI in a different context than SSA, this section will compare and discuss the findings of this case study in relation to the African studies. This is done by highlighting issues regarding the intervention design and the differences in stigma-theories. The second aim of this dissertation is to test the framework of Menstrual Inclusion as an assessment model. This will be discussed in this section as well. This study has found two major shortcomings of the CSBI in the Indian context, being WASH-facilities and pain management. These will be discussed in section 7.1.

Beksisnka et al.'s study (2015) has an uptake success rate of the cup at ninety-six percent after three months. (Beksinska et al., 2015). In this study, only two out of six girls had a successful uptake. This can be explained through the intervention design, as the studies from SSA have monthly follow-up seminars conducted by trained personnel (Beksinska et al., 2015 and Philip-Howard et al., 2016; Hyttel et al., 2017). All the participants of this study agree that more education and support would have facilitated their uptake. Furthermore, all participants who failed to uptake the cup agreed that the inclusion of their mothers would have facilitated their uptake greatly. As Lilly states: "*My mother told me not to use [the cup]. But if she had education about this product, she would have allowed me to use [it]"* (Lilly, 06-02-20). In the Indian context, mothers and female elders are the primary agency-givers for Indian girls. They should be included in policy implementation and studies in the future.

The CSBI relies heavily on MHMP provision as they have the potential to circumvent insufficient WASH-facilities (Madiziyire et al., 2018; Hyttel et al., 2017). The CSBI studies in SSA highlight reusable MHMPs for this purpose because of cost efficiency, comfort, and the sustainability aspect (Philip-Howard et al., 2016 and Hyttel et al., 2017; Madiziyire et al., 2018; Hennegan et al, 2016). This study shows a limited difference between Menstrual Inclusion across products and the findings on the menstrual cup are especially disappointing. This view is supported by Oster and Thornton (2011) who found that menstrual cups did not lower school absenteeism in Nepal (Oster and Thornton, 2011). Instead, this study shows that overall access to MHMPs matters greatly to Menstrual Inclusion. This is supported by Montgomery et al., (2012) who found that conventional sanitary pads had similar, positive results as the reusable kind (Montgomery et al., 2012). However, as discussed above, issues of sample size, methodological considerations, uptake rates, and the

choice of the case make it hard to determine the outcome of the MHMP provision part of the CSBI, based on a singular case.

In regards to the stigma, there are multiple examples in the literature from SSA that menstruation is discreditable (McMahon et al., 2011; Sommer, 2010; Mason et al., 2013; Philips-Howard et al., 2016; Chrichton et al., 2013, Hytttel et al., 2017). However, only one study mentioned any discredited stigmas (McMahon et al., 2011). Hence, the stigmas are vastly different between the cultural contexts of SSA and India. This greatly impacts how adolescent girls navigate their social lives. The difference in stigma and cultural meanings of menstruation creates a different starting point for the CSBI. This affects the intervention's potential impact on Menstrual Inclusion. Unfortunately, this study finds no indications that the CSBI has affected the respondents' discredited stigma directly. Because of India's stigma theory, this indicator is tremendously important to determine the appropriateness of CSBI in India. This finding may not be accredited to the insufficiency of the CSBI, but rather the research design. The study finds that the discredited stigma is held in place by elders and other local authority figures. However, the study concerns only the individuals that received MHMPs. Therefore, future studies would benefit from a greater scale of participants, including female elders, local politicians, teachers, and religious leaders. If the CSBI impacts the discredited stigma, and therefore the Menstrual Inclusion, it may be determined by including these agents.

Furthermore, the stigmas vary across space in India, making it hard to determine the usefulness of CSBI in India. The literature shows that girls and women from both Hindu and Christian communities follow the discredited stigmas (Arora, 2017, Yagnik, 2013, Rajagopal and Mathur, 2017). This study found that Christian girls have no such restrictions imposed on them. As one of the Christian girls stated, "*it's the Hindu people […] Christians don't do it*" (Hannah, 29-02-20). As discussed above, the Hindu respondents declared that they are barred access to temples and that they cannot cook or fetch water, nor touch other people's food, water, or utensils, due to discredited stigma. This seems to be in sync with the literature on the matter (Singh, 2017, Arora, 2017, Mason et al., 2017). The Hindu respondents related that they are not allowed to go into the field, as the plants will wither if they do. This is presumably not mentioned in the literature and seems to stem from a local belief system within Hinduism. Furthermore, this study shows no indication that the girls isolate themselves during their periods, as the literature prescribes (Arora, 2017; Mason et al., 2017; Yagnik, 2013). Hence, the discredited stigma is affected by local belief systems and stigma

theories within Hinduism. As India is a vastly diverse country, future interventions need to be adapted to be appropriate in the specific cultural context. As the CSBI is a rather flexible intervention model, this should be possible.

Menstrual Inclusion has proved to be an extensive assessment tool for menstrual interventions. The researcher's findings and discussions concerning the discredited stigma would not have been highlighted if this study had used school attendance as the main assessment tool. The same counts for the shortcomings regarding WASH-facilities and pain management discussed below. This study indicates that Menstrual Inclusion is an appropriate assessment tool to evaluate the CSBI, and potentially other menstrual interventions. However, one can speculate whether it is the most inclusive and suitable tool, or if more sociological indicators would provide a more thorough analysis. For instance, Menstrual Inclusion leaves out components of age, class, and ethnicity. Certain indicators in this study show that age may affect Menstrual Inclusion, as Lilly was restricted from using the menstrual cup because she was considered too young. The mothers were also more open to discussing menstruation than the younger girls (Lilly, 06-02-20; Mothers, Aspur, 07-02-20). This factor has been downplayed by the framework of Menstrual Inclusion. This study found no indication that ethnicity, class, or caste play a role regarding Menstrual Inclusion, but in other spheres these may play an important role in how successful the CSBI becomes. Hence, Menstrual Inclusion provides a more comprehensive framework than school attendance to determine the interventions by. Replication of this study in other geographical and social spheres could prove if the framework would benefit from including more indicators.

7.1 CSBI Shortcomings

Certain issues were not addressed by CSBI; specifically WASH-facilities and pain and discomfort. In this section these issues are addressed to highlight the potential shortcomings of the CSBI in the Indian context.

The girls' WASH-facilities differ greatly depending on the space they are in. WASH-facilities at home varies between the participants, as some report to have a toilet, some do not, and one girl is having one built as of writing (Diya, 15-02-20). None of the girls expressed concerns about lacking privacy at home. The girls without dustbins hide their pads under a rock and burn them later (e.g. Diya, 15-02-20). The participants seem to manage their periods well at home, and no-one reported any issues using the provided MHMPs, despite the lack of WASH-facilities. All participants in the

follow-up study with sub-standard WASH-facilities at home denied that the facilities affected their activities.

The girls attend different schools as they split into different programs after 10th grade. None of the girls use the bathrooms in their schools unless necessary, as they are dirty and unhygienic (Sarah, 15-02-20, Maniksha, 15-02-20; Diya, 15-02-20). One girl in the baseline study reported having no dustbin in the school bathroom and was therefore unable to change her pads in school. She had experienced leaks because of this practice (Baseline 1, 27-01-19). Only two of the girls in the follow-up study had changed their MHMP in school. One of them, a pad user, hid in the stall until no-one was around in order to throw the pad in the dustbin in the main area of the bathroom (Lilly, Kherwara, 06-02-20). She stated that the other girls would laugh if they found out she was on her period.

Figure 9 This picture shows the environment behind the girls' bathroom in the old building.

For the hostel, the girls in the baseline threw their pads out of the bathroom window (see figure 9). When asked about this practice, the respondents related that they did not have a dustbin. (Baseline 1 and 2, 27-01-19). In the spring of 2019, an incinerator was installed by the BDTA. All the participants of the follow-up study spoke in appreciation of the incinerator, and how it made their periods much more comfortable (Hannah, 06-02-20; Maniksha, 15-02-20, Deena, 03-03-20). According to all the respondents in the follow-up study, the bathrooms at ASGH are hygienic and clean and have the required privacy for the bath-stalls and toilets both. However, after the girls moved to their temporary home, the incinerator had been moved to the outside of the toilet building, meaning that girls had to walk out of the toilet and around the corner, pad in hand, to dispose of it. The incinerator was also in the view of the classrooms just across the playground (See figure 10). According to the girls themselves, the position of the incinerator was not an issue, but never-the-less resulted in clogged toilets, as the smaller girls allegedly felt uncomfortable taking their pads outside to burn them (Karishma, 29-02-20; Deena; 03-03-20; Mamtha, 04-03-20).

Figure 10 when the girls moved to the temporary building of All Saints Girls Hostel, the insinuator was moved to the outside of the toilet building. This is the view from the position of the incinerator; a school building with classrooms facing the incinerator. According to the participants' statements, the small girls did not feel comfortable with this new position, instead dismissing the pads in the toilets, resulting in them clogging.

The girls are flexible and adaptable when it comes to WASH-facilities and manage their periods well despite lacking or insufficient facilities. This study indicates that the biggest issues concerning the WASH-facilities is the fear of discovery and the lack of privacy. It is therefore not the WASH-facility itself, but the discreditable stigma that is affecting the girls' Menstrual Inclusion. Nevertheless, this study finds that proper WASH-facilities helps the girls cope with the stigma, as incinerators, dustbins, and general privacy allow greater ease of daily activities.

The premise for the CSBI is that MHMPs and especially the menstrual cup can facilitate Menstrual Inclusion, as it can circumvent the challenges of inadequate WASH-facilities in public spheres (i.e. Madiziyire et al., 2018; Hyttel et al., 2017). Based on the findings from this case, the study cannot support this notion. Instead, the study indicates that adequate and clean WASH-facilities facilitates Menstrual Inclusion. This study can therefore not support the CSBI's notion that WASH-facilities play a secondary role in facilitating Menstrual Inclusion, or that WASH-facilities can be circumvented through the MHMP-provision. However, it is unknown if these findings had been different, had the uptake success rate of the cup been different.

The second issue that the CSBI does not address is pain and discomfort. "*In periods, I got so much pain and cramps, so I don't do much. When I am on normal days, I can walk more freely*" (Karishma, 29-02-20). Pain seems to be a great issue in relation to the girls' Menstrual Inclusion, as six out of eight respondents in the follow-up study related that pain is a substantial problem to them. Hannah stated that she was unable to join the other girls in playing cricket when she was on her period due to pain. (Hannah, 29-02-20). Some of the girls in the baseline and follow up study mentioned going home from school because of pain, but none of them admitted to not going to school because of it. They did mention that some of their friends stayed at home (Sarah, 15-02-20; Maniksha, 15-02-20) Observations show that girls typically miss one or two days of school, and when asked, the girls relate that it is because of pain (e.g field notes, 10-02-20; 25-02-20). Painkillers are not available to the boarders at ASGH. The girls have limited agency in this regard, as the discreditable stigma makes it difficult to discuss pain and discomfort with agency holders. Interestingly, the schools' menstrual education told the girls not to use painkillers (Lilly, 06-02-20; Hannah, 29-02-20, 29-02-20; Mamtha, 04-03-20), and the matron voiced concern regarding the girls' grades and ability to concentrate if taking them (Field notes, 04-03-20). The local discourse appears to be against the use of painkillers. Instead, the girls manage pain by drinking hot water (Mamtha, 04-03-20) and sleeping (Diya, 15-02-20; Hannah, 29-02-20; Karishma, 29-02-20). This is

inadequate, as Mamtha was frustrated that drinking hot water was not helping her cramps (Mamtha, 04-03-20). This study finds that pain is one of the greatest barriers for the girls' Menstrual Inclusion, as it affects their access to education and social life both.

Pain is mentioned in the African literature but is discussed as an additional issue or minor problem affecting girls' absence in school. Even Chriction et al.'s comprehensive framework on menstrual poverty (2013) describes pain, cramps, and physical discomfort as "*another problem affecting school attendance*" (Chrichton et al., 2013, 15). This conclusion is questionable, as this study finds that pain is one of the biggest barriers to girls' Menstrual Inclusion, on par with stigma and access to MHMPs. This is highly problematic, and more research is needed to fully understand the local discourses against painkillers and belief systems regarding pain management in general, and how this affects women's and girls' Menstrual Inclusion. This component could easily be incorporated in the CSBI, as the issue could be addressed through education in pain-management and the potential provision of painkillers in cooperation with medical staff.

8 Conclusions

In recent years, there has been a surge of research on tackling menstrual poverty. The two leading theories are the Civil Society Based Intervention and the more comprehensive WASH-facility model. With CSBI, interventions include menstrual education and MHMP-provision, and with the WASH model, WASH-facilities is added to the framework.

Most of the intervention studies have been focused on SSA's context, assessing poor, rural, majority-Christian populations. These interventions are assessed through school drop-out and absenteeism. This is a narrow-minded, production-oriented assessment tool that does not capture the full potential and limitations to the interventions. Therefore, this study introduces a more comprehensive conceptual framework: Menstrual Inclusion. This conceptual framework has been tested through this study. Menstrual Inclusion seems adequate and appropriate to capture the diversity and complexity of the meanings and issues of menstruation in the global south and is therefore an advanced method of determining the quality of interventions than previously used indicators such as school attendance. However, testing the framework in different contexts could prove it will need further adaptions or more indicators.

This study tests the CSBI through a case study of adolescent girls at All Saints' Girls' Hostel in Kherwara, Rajasthan, India. Following the CSBI, all girls were educated on MHM and MHMPs, and some girls volunteered to test different MHMPS for one year. The CSBI did not affect the discredited stigma imposed on the respondents and therefore did not affect their relativity significantly. This may be addressed by including agency holders in future studies. Certain indicators show that the CSBI allowed greater intra-personal agency in relation to the stigma. The CSBI opened the debate and gave some girls agency to teach and empower others. This agency had certain geographical borders, as the respondents did not obtain this agency outside of the ASGH. There are some indicators that the dynamics of the girls have been affected, but due to methodological issues, these results are dubious. The study found no significant differences between the MHMPs, but overall access to MHMPs matters greatly to the girls' Menstrual Inclusion. However, due to methodological issues and sample size, this finding is not clear. This study indicates that the CSBI is both feasible and appropriate in the Indian cultural context. However, the study cannot support the CSBI's notion that MHMPs can overcome the needs for WASH-facilities. Quite the opposite, the study found that adequate, private WASH-facilities facilitated girls' Menstrual Inclusion, as it allows the girls to manage the discreditable stigma.

Going forward, more intervention studies are needed in the Indian context to determine how to best facilitate Menstrual Inclusion. These studies need to be culturally appropriate, as this study indicates that mothers rather than peers are the main agency holder and support for adolescent girls in the Indian context. The study found overwhelming evidence that pain and physical discomfort greatly affect the girls' relativity, a factor that has been over-looked and downplayed in the literature. This needs to be addressed promptly.

This action research indicates that Menstrual Inclusion is an appropriate and efficient conceptual framework to assess interventions, as it captures the complexity of the issues that menstruating women and girls face in their everyday life. Furthermore, the study indicates that the CSBI is both feasible and appropriate in the Indian context and does contribute to girls' Menstrual Inclusion. However, it is unknown if the CSBI can circumvent lacking and insufficient WASH-facilities. Due to the exploratory design of the study, replication is needed to determine if CSBI is the most appropriate method to facilitate Menstrual Inclusion in the Indian context.

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Appendency A: List of Respondants in the Follow-Up Study

1) Lilly, 17 years old, Hindu. Interviewed in Kherwara, 06-02-20. Intervention: Menstrual Cup. She was not allowed to use the product by her mother. She used government pads and conventional pads in the study period.
2) Sarah, 17 years old, Christian. Interviewed in Kherwara, 15-02-20. Intervention: Cloth Pads and Tampons. Interview was ended considerably earlier than other respondant's, as she was visibly uncomfortable with the situation (field notes, 15-02-20).
3) Maniksha, 15 years old, Hindu. Interviewed in Kherwara, 15-02-20. Intervention: Menstrual cup. Did not use the product. She used government pads and conventional pads in the program period.
4) Diya, 18 years old, Christian, newly converted. Interviewed in Kherwara, 15-02-20. Intervention: conventional pads of the brand *Whisper*. (50 r/package).
5) Hannah, 17 years old, Christian. Interviewed in Kherwara, 29-02-20. Intervention: Menstrual Cup. Had a successful uptake.
6) Karishma, 15 years old, Hindu. Interviewed in Kherwara, 29-02-20. Intervention: Menstrual Cup. Had a successful uptake, but discontinued use after six months.
7) Deena, 19 years old, Hindu. Interviewed in Kherwara, 03-03-20. Intervention: Was given pads, but exchanged products with one of the other girls who was part of the intervention, but did not participate in the study. discontinued use after 3 months.
8) Mamtha, 16 years old, Christian, newly converted. Interviewed in Kherwara, 04-03-20. Intervention: Menstrual Cup. Had a successful uptake.