

**A sociological study of menstrual hygiene management in schools
in the Makana District, Eastern Cape, South Africa.**

Thesis

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Abstract

Appropriate menstrual hygiene management is affected by taboos and secrecy surrounding menstruation. Inadequate information and knowledge about menstruation and lack of resources for managing menstruation hygienically have impacted adolescent girls on a psychosocial and physical level. Consequently, the dignity of schoolgirls during the onset of menstruation through puberty and adolescent phases is jeopardised. It is therefore imperative to understand the normal physiological changes that school-going children from Grades 6 to 12 undergo and acknowledge how these changes affect their education within the school environment. In the Makana district, Eastern Cape, South Africa, the topic of menstrual hygiene management is under-researched at schools and, therefore, this research explores school educators' perceptions of menstrual hygiene management at primary, secondary and private schools in this area. Schools have a responsibility to create a safe environment for learners' education, which includes the topic of menstruation without discriminating against or labelling menstruating girls. This research found that the topic of menstruation is only discussed in Life Science and Life Orientation subjects and only covers the physiological changes of the body. These subjects, however, exclude the topic of menstrual hygiene management.

This study found that several schools in the Makana district are not adequately equipped to provide for the needs of menstruating girls and therefore educators need to be prepared to deal with menstruation in the school context. The educators are also required to go for regular training or workshops to equip them to manage menstruation in a school environment. The infrastructure of a school includes water and sanitation which are components of menstrual hygiene management. The infrastructure at the participating public schools was inadequate and therefore impacted on the menstrual hygiene management for the girls. The unavailability of water, the non-existence of a sick room and lack of a waste disposal system at some public schools presented further challenges for menstrual hygiene management. A qualitative research method was applied in this study and a symbolic interactionism approach was used.

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Chapter 1: Introduction

1.1 The geographical setting

This is a sociological study of menstrual hygiene management (referred to as MHM) in schools in the Makana district, Eastern Cape, South Africa (Figure 1), and is located within the field of the sociology of health. The city of Makhanda, formally known as Grahamstown, where the participating school are located, (see Figures 1-3), lies 130 km north-east of Port Elizabeth. The Makana district (see Figure 1) is one of the seven districts in the Sarah Baartman District Municipality and has a population of 82060 according to the 2011 census. The unemployment rate is 45,5% according to Makana local municipality's Integrated Development Plan (IDP) of 2019-2020, and therefore poverty is visible. The current education system in South Africa has been inherited from the previous Apartheid government's system of education (Macleod et al., 2020: 2) and the impact of this can be noted in the Makana district.

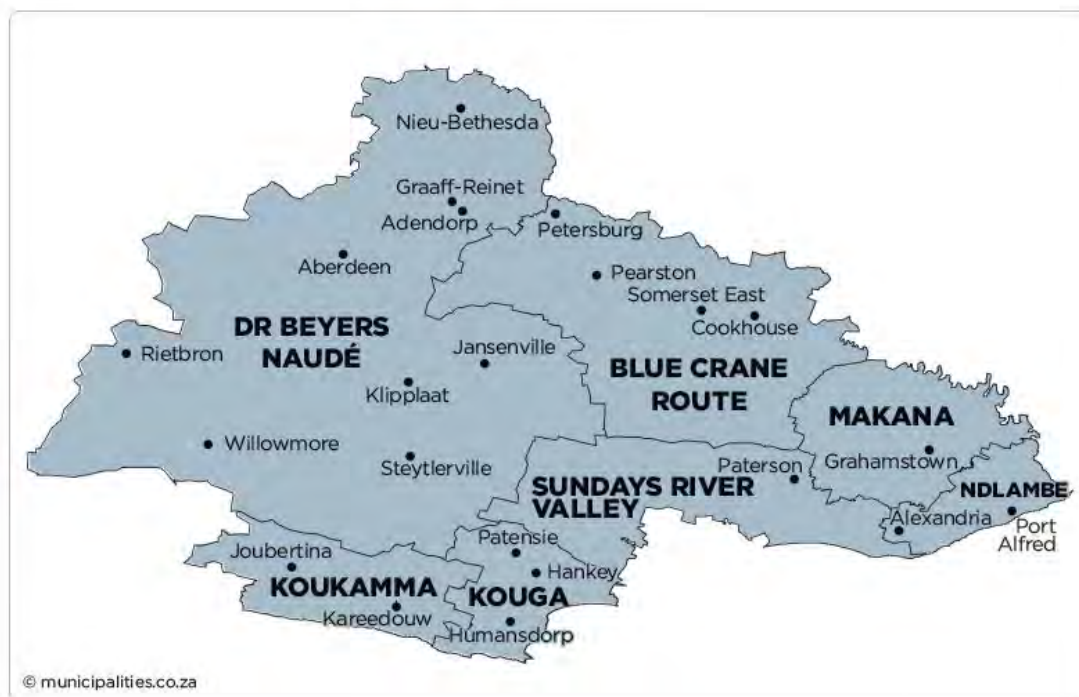


Figure1: Sarah Baartman District Municipality
(<https://images.app.goo.gl/HJmEs9wkznXe8XSW9>)

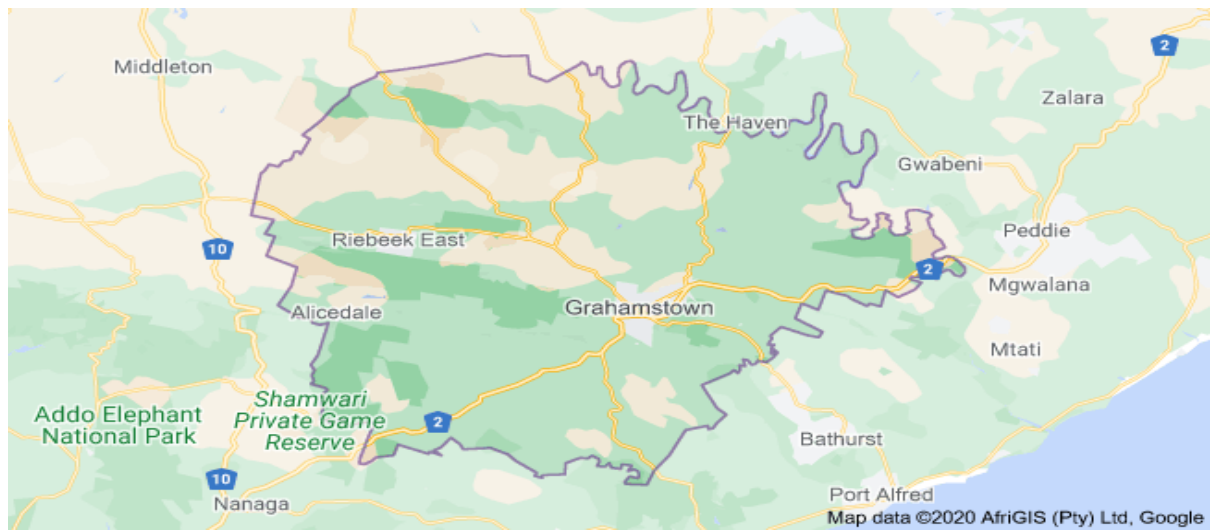


Figure 2: Makana district, <http://www.makana.gov.za/wp-content/uploads/2013/06/Final-IDP-2019-20-updated.pdf>.

Some schools in the Makana district are situated in rural areas, such as Riebeeck East, which is an agricultural village within the district (see Figure 3). One of the participating schools is located in Riebeeck East. The village is located 42 km west of Makhanda. The area is hilly and is situated amongst game and sheep farms. Basic resources are available in the village, including a primary school, churches, general shops, a police station and a primary healthcare clinic. This area experiences water challenges due to drought and climate change, unemployment is high, and no public transport is available for the community and learners to the nearest town, Makhanda.

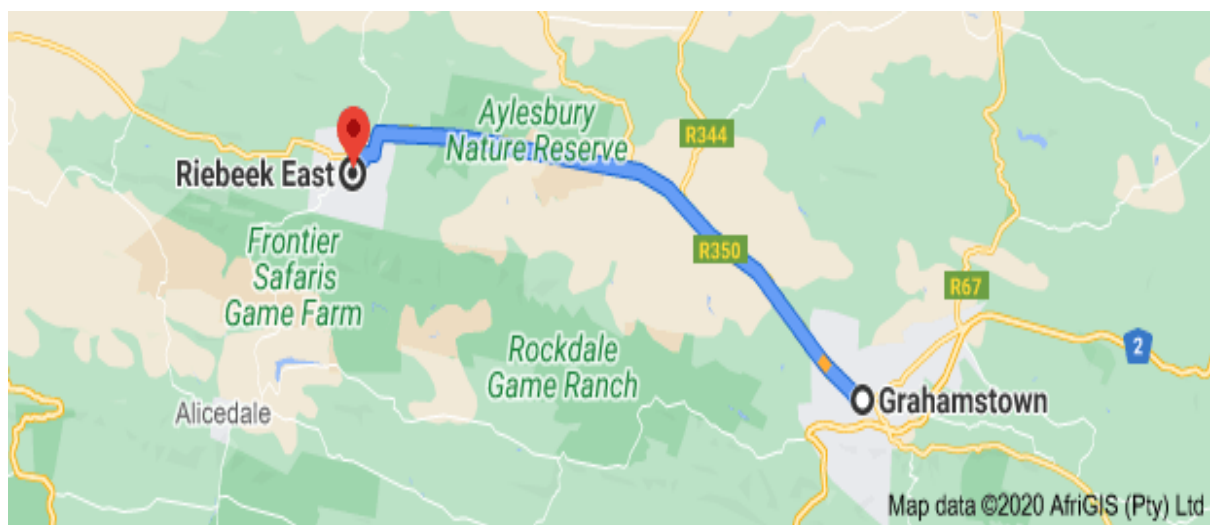


Figure 3: Riebeeck East, <https://images.app.goo.gl/ka9ALed2cMjRv8V46>

1.2 Political context

Apartheid is described by Fiske et al. (2004: 2) as a historically South African policy or system of segregation based on racial discrimination which favoured the white minority in the country. Under apartheid, the black population were forced to live in separate areas from the white population, and were legally prohibited from using the same facilities such as transport, libraries, hospitals, schools, ambulances, doctors' surgeries etc. Therefore, contact between black and white people was limited. These policies were enforced by the National Party who came into power in South Africa in 1948 and the effects of this racially unequal system were also felt in the education system prior to 1994.

During Apartheid, schools catering for white learners had enough resources compared with those schools serving black learners where there were insufficient numbers of qualified teachers, physical resources and teaching equipment such as textbooks and stationery. Unfortunately, black learners were given an inferior education to prevent them from advancing in the modern economic sector (Fiske et al., 2004). This enabled the Apartheid government to have a steady supply of semi-skilled cheap labour, especially in the fields of agriculture and mining and the domestic sector (Fiske et al., 2004: 2).

The Makana district education system displays the inequalities of education linked to the Apartheid schooling system. There are four semi-public schools, four private schools and 30 public schools in the Makana district. The education system continues to perpetuate social inequalities as most learners attend schools within the areas they live. It is mostly those learners whose parents have the necessary financial means who can choose which schools they attend. In Makhandla, different school categories are located according to the different areas within the town (see Figure 4). The public schools are largely situated in the east (black township) and south (coloured township) areas, whereas the semi-public schools (ex-Model C schools) and private schools are located in the west, towards town. The public schools have inherited the legacy of a lack of resources from the Apartheid period and rural schools have even fewer resources. The education programmes at semi-public and private schools benefited from the system and inherited well-resourced schools with good infrastructure and facilities.

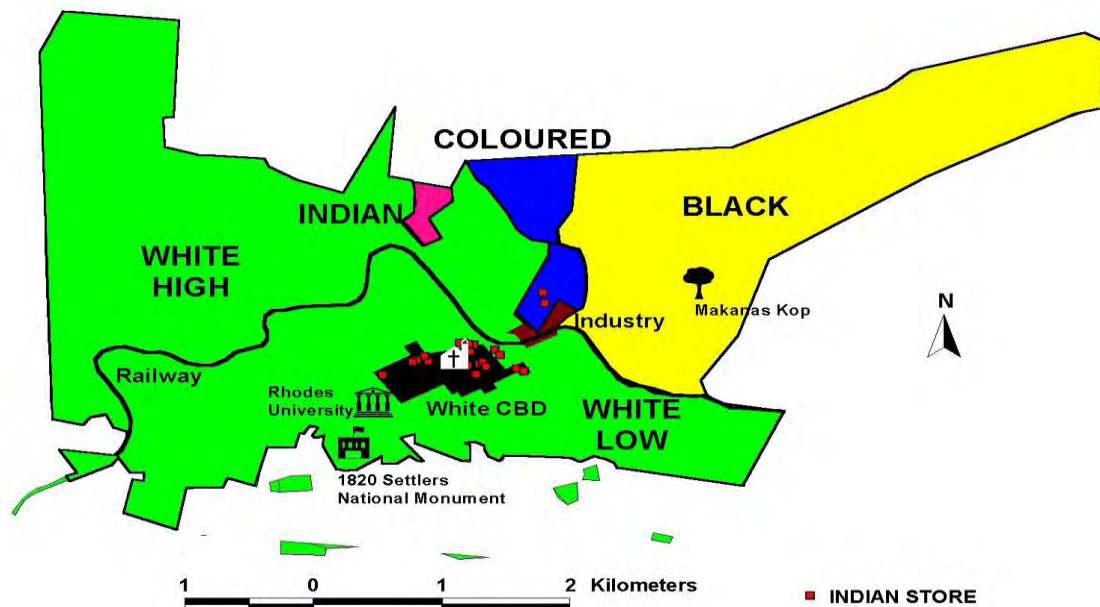


Figure 4: Makhanda (formally known as Grahamstown)
<https://images.app.goo.gl/LMDAxNEqHx6FTPeG6>

1.3 Contextualising menstruation

Developing countries need to develop infrastructure that will sustain sanitation and hygiene at all levels. Sanitation facilities at most public schools in Makhanda (see Figure 4) appear to be inadequate. Furthermore, education around these issues is not being addressed. The schools I visited in the Makana district indicated that water outages were common and this has put pressure on the school environment. The poor infrastructure of the town, together with the drought, has also impacted on the provision and availability of water at schools. The Eastern Cape Department of Education needs to prioritise water and sanitation facilities at schools to ensure that learners have equal education opportunities. This will also improve menstrual hygiene management at schools.

The World Health Organisation (WHO) and UNICEF (2012:16) defines menstrual hygiene management (see Figure 5) as:

“Women and adolescent girls being able to use a clean menstrual management material to absorb or collect menstrual blood that can be changed in privacy as often as necessary

for the duration of the menstrual period. Menstrual hygiene management includes soap and water for washing the body as required, and access to facilities to dispose of the used menstrual material” (Chin 2014: 4).

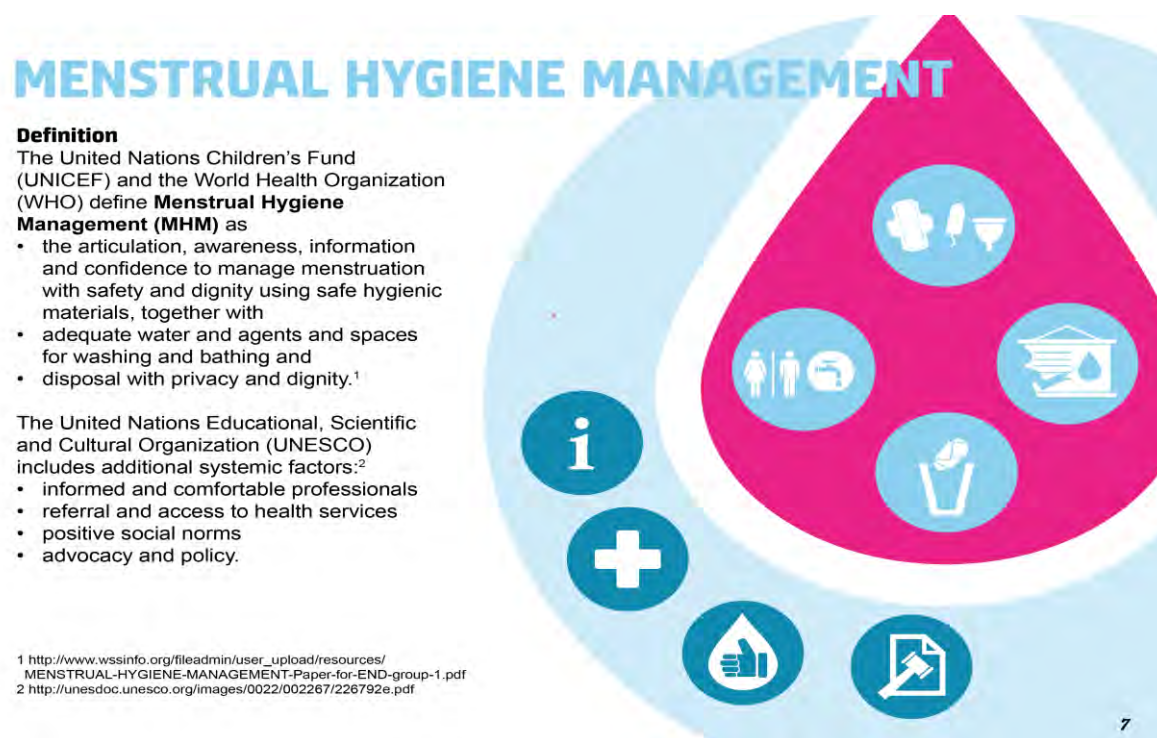


Figure 5: Definition of menstrual hygiene management (Chin, 2014:4)

Menstrual health management also includes the absence of shame and embarrassment, the lack of dignity and fear due to menstruation, as well as the freedom of movement (Chin, 2014: 5). Menstruation is defined as a physiological process in a female’s life that involves the shedding of the endometrial lining of the uterus (Abrahams et al., 2006; Kaur et al., 2018; Nahar & Ahmed, 2006; Nanda et al., 2016, see Figures 6 & 7). Menarche can be described as the onset of a girl’s first menstruation and both symbolises the reproductive phase and marks the social transition from childhood to womanhood (Haver et al., 2018: 1; Kaur, 2018: 1) (a). The onset of the first menstruation for adolescent girls is generally between the ages of nine and 15 but can also start as early as eight years of age (Chikulo, 2015: 1972). A normal menstrual cycle is every 28 days or four weeks but can also vary from 21 to 35 days (Chikulo, 2015: 1972). Menstruation typically lasts between three and five days (McMahon et al., 2011: 2).

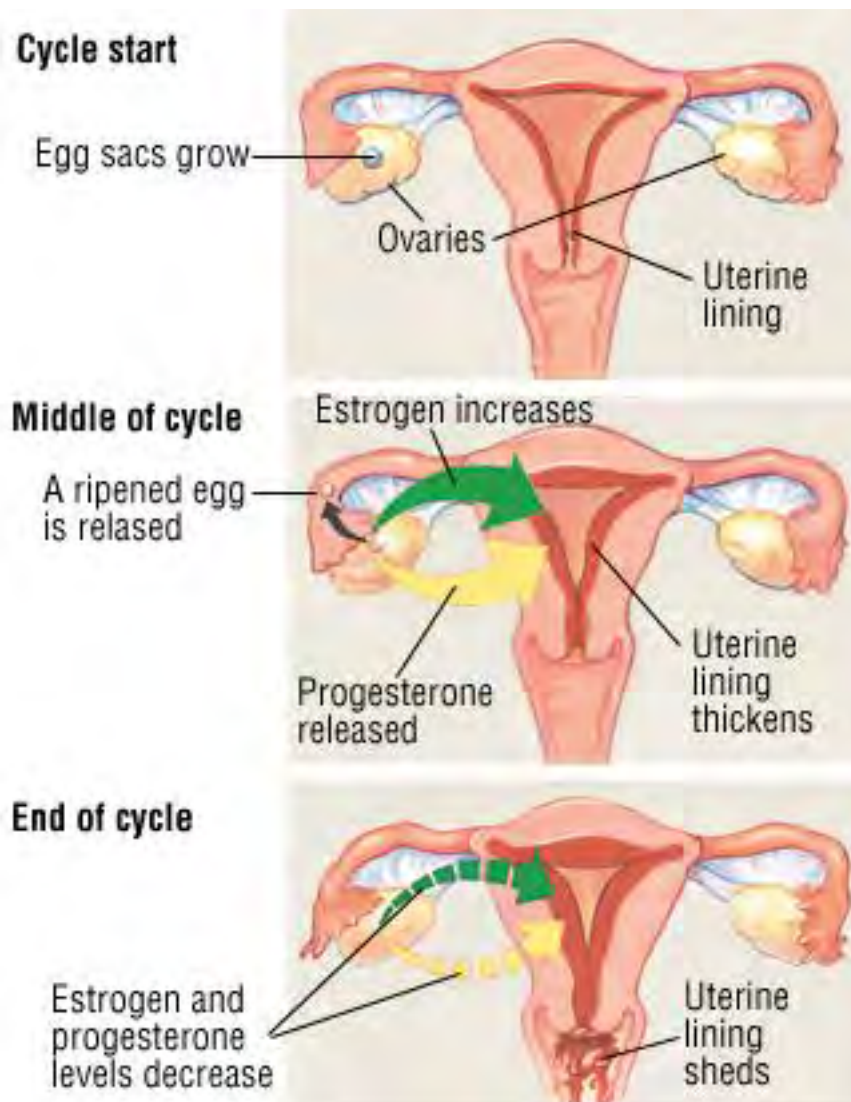


Figure 7: Physiological process of the uterus during menstruation
<https://www.health.harvard.edu/media/content/images/cr/205024.jpg>

Menstruation is commonly experienced by females from the onset of puberty and should, therefore, not be labelled as a taboo subject (Kaur et.al., 2018: 270 (b); Schooler, et al., 2005: 324; Tamiru et al., 2015: 92). Patterson (2013: 9) defines taboo as anything existing within the community where all view it as a threat and, as a result, in thought, word and deed there are restrictions resulting in possible threats to the health of the group, community or society. Some schoolgirls and women may feel guilty, embarrassed or ashamed because of the taboo and this can influence their behaviour when menstruating (Kirk & Sommer, 2006: 2). This research evaluates the menstrual hygiene management of schoolgirls in a cross-section of public, private and rural schools in the Makana district. The reason for researching this topic is that it is a

globally neglected issue that has a profound impact on the school experiences of female scholars (Chikulo, 2015: 1972-1973; Kaur et al., 2018: 270 (b); Sommer et al., 2015). Menstrual health is an inclusive term that involves menstrual hygiene and management together with other factors that are closely linked to menstrual hygiene management, such as gender inequality, education (e.g. girls' absenteeism from school due to menstruation) and female rights and empowerment (Geertz et al., 2016: 2; Hennegan et al., 2017: 3; Joshi et al., 2015: 52). It is necessary to educate and transfer accurate information to learners so that they have an understanding of menstruation (Dambhare, 2012: 109; Sommer et al., 2016: 1). Human rights are adversely affected when schoolgirls cannot manage their menstruation with dignity. The lack of sanitary waste-disposal bins, washing facilities, handwash, towels and toilet paper have an impact on girls' menstrual hygiene management experiences at school and affects their dignity. Girls have a human right to education and educating girls contributes to the development of the economy of a country, as well as allows for the building of an inclusive society that invests in the family and future generations (Boosey et al., 2014: 2).

The Constitution of South Africa, as well as the country's health and education policies are included in this discussion to highlight the discrepancies between the desired goals and institutional policies and how they relate to young girls at government schools in the Eastern Cape, South Africa. Education policies that refer to the curriculum which addresses issues such as menstrual hygiene management and menstruation are investigated to see whether information has been given to educate learners on these issues. The subjects that cover this topic are Life Orientation, Life Skills in Grades 6 and 7, and Life Sciences in Grades 10, 11 and 12. This has influenced my decision to interview educators teaching these subjects at these levels.

1.4. Objectives of the research

The primary objective of this study is to explore the meaning and interpretation of menstrual hygiene management by educators and other actors in schools in the Makana district. This includes an assessment of the infrastructure available at schools such as water, sanitation and facilities. The secondary objectives are to:

- a) Gain an understanding of educators' attitudes towards gender equality and menstruation;

- b) Explore the extent to which educators interpret and transfer their own knowledge about menstruation to learners; and
- c) Investigate the support structures such as water, sanitation, waste disposal facilities and sick bays available to educators and other actors.

1.4.1 Methodology, procedures and techniques

As discussed at greater length in Chapter 3, the research makes use of a qualitative approach, which is seen as a systematic approach used to describe life experiences and give them meaning. This includes the ability to gain insights into issues at schools (Braun et al., 2013: 20). It also seeks to develop a narrative about issues and tries to understand the reason why something is the way it is (Babbie, 2011: 24).

Babbie (2010: 3) recommends in-depth interviews in field research. In this instance, the in-depth interview can be described as an interaction between the researcher and participating school staff members. When qualitative research takes the form of an interview, the interviewer asks open-ended questions and simply records what the participants say. The primary goal of the in-depth interview is to gain detailed information and to investigate the reasons behind the answers (Leavy, 2017: 139). In this study, onsite inspections were also conducted to evaluate facilities at schools, including water, sanitation, waste disposal containers and sick bays.

Babbie (2010: 179) further defines purposive sampling as sampling with a specific purpose in mind. The schools in this study were selected with the purpose of gaining a deeper understanding of menstrual hygiene management at schools in the Makana district (Neuman, 2006: 222). As a result, four primary schools and four secondary schools in the Makana district were chosen as research sites. The interview interaction allowed the researcher to probe the research participants and gather information (Bernard, 2013: 182-185, 211). The research participants included a total of 12 secondary school educators; three from each school, including the principal and two educators or/and staff members responsible for health care, where applicable. Twelve primary school educators, including the principal and Grade 6 and 7 educators, were also interviewed from across the four primary schools. The anonymity of schools and educators was maintained, as was their confidentiality, for ethical purposes. The schools agreed to participate in the research study. All interviews were recorded and transcribed (Bernard 2013: 194). At the end of the study the participating schools will receive a copy of the findings and analysis.

1.5 Outline of the research study

The study is constructed as follows:

The thesis comprises six chapters. In Chapter 1, the study is located contextually, and descriptions of the geographical locations of the participating schools are provided. The topic of menstrual hygiene management in the Makana district schools is outlined, and the sociological position discussed. In the context of this research, varying understandings of menstruation can potentially create fear and embarrassment and lead to negative actions (Sommer et al., 2016: 2). For this reason, this research explores the way in which menstrual hygiene management is approached in schools because it has a strong bearing on learners' meaning, as well as construction and interpretation of menstruation. The goals of this research, the methodology, procedures, technique and summary of the six chapters are included in the introduction.

Chapter 2 provides an overview of the existing literature relating to menstrual hygiene management globally. Literature from the Global North and South, as well as from other countries, is reviewed to provide a holistic overview of the literature regarding menstrual hygiene management in order to highlight differences between developed countries and developing countries.

In Chapter 3, the methodology applied in this study is discussed and explained. Additionally, the research design and method are outlined. This comprises qualitative research involving interviews and observation.

Chapter 4 explains the theoretical framework within which the data is interpreted, i.e. symbolic interactionism. Included in this chapter is a discussion of the relationship between the framework of symbolic interaction and the construction of meaning and interpretation of menstruation by learners and educators at school.

Chapters 5 and 6 provide a comprehensive analysis of the data collected in the study. Different themes emerged from the data collected. The themes are divided into software and hardware data analysis according to Hennegan's (2020) concepts. The theoretical framework and existing literature are linked to the results of the study.

Chapter 7 concludes the research and provides an overview of the study and the results and reveals the implications of poor menstrual hygiene management and lack of resources and the ways in which this can influence the menstruating girls' journey from childhood to womanhood. Recommendations for future research in menstrual hygiene management are also proposed.

Chapter 2: Literature review

2.1 Introduction

The menstrual hygiene practices of schoolgirls in public, private and rural schools in Makhandla, Eastern Cape, South Africa are researched in this study. The study seeks to explore menstrual hygiene practices at primary and secondary public, private and rural schools situated in a range of communities from poor to working-class, middle-class and elite. The onset of menstruation with dignity is also examined. The normal physiological changes that occur in girls from Grade 6 to Grade 12 and how these changes affect their education within the school environment are critical issues. Schoolgirls need to be assisted to manage menstruation more hygienically and humanely. Women and girls need to have access to information on menstruation, clean and safe absorbents during their menstrual cycle, facilities such as sanitation and water, and also appropriate waste management. Menstrual health is an inclusive term that includes menstrual hygiene and broader systemic factors that are linked to menstruation like health, well-being, gender, education, equity empowerment and rights (Alexander et al., 2016). It is necessary to understand the normal physiological changes that girls in Grade 6 to Grade 12 undergo and how these changes affect their education within the school environment.

2.2. Global North

2.2.1. Socio-cultural practice

A study by Schooler, Ward, Meriwether and Caruthers (2005), conducted at a Midwestern University in the United States of America, examined the relationship between menstruation and young women's sexual decisions. Menstruation is a natural body process for women, and yet it is associated with cultural myths that are often prohibited discussion points. The cultural taboos surrounding menstruation lead to secrecy and are linked to the notion that menstruation is "dirty and disgusting" (Schooler et al., 2005: 324). These girls reported feeling embarrassed when utilising sanitary products as well as when soiling clothing in public situations. The authors contend that shame relating to menstruation affects girls' sexual decision-making. These myths and sexual shame link closely to my study on menstruation.

Stubbs (2008) investigated early adolescent girls' development at the Wellesley Centre for Research on Women in the mid-1980s in the United States. The researcher describes

menstruation as a phenomenon that has a "good and bad" reputation. The positive reputation symbolises the start of menarche, which are signs of physical changes and fertility in a girl's body. The negative reputation highlights the physical and psychological problems such as shame, embarrassment, self-esteem and menstruation. The bad reputation often overshadows the positive aspect of menstruation because of culture and tradition (Stubbs, 2008: 58). The onset of menarche symbolises the transition from childhood to womanhood and the development of a girl physically, emotionally, psychologically and socially.

Shah (2019) wrote an article for British Broadcaster Company News, Washington, that highlights the "ending and shame over sanitary pads" (Shah, 2019: 1). In Maryland, when some women go to the bathroom for their menstrual needs, they may experience a feeling of shame and feel the need to hide their sanitary pads. The psychological emotions, such as shame and embarrassment, can be linked to stigma and the secrecy around menstruation in the society. These negative feelings have an impact on a girl when she is menstruating.

The memory-work study of Koutroulis (2001: 2013) in Australia focuses on narratives and discussions around menstruation. The memory-work study is the exploration of menstruation through a woman's memories, discussions and storytelling and shows how menstruation is included in the human relationship. The narratives show that "the body of the menstruating woman has a cultural meaning that is engrained to ensure that embodied experience of the menstruating woman is different from the embodied experience of the non-menstruating woman". The woman's experience signifies differences in the symbolic meaning of the menstrual blood as clean or dirty. The researcher briefly states that the theoretical origins of memory-work evolved from Haug (1987) who is concerned with how oppression and the body are connected (Koutroulis, 2001: 188). The concern is with "how society as a whole recreates itself through the lives of the majority in their day-to-day activities" (Koutroulis, 2001: 189). Koutroulis (2001: 189) defines Goffman's (1968) concept of stigma as necessary because it gives a sociological framework for the analysis of body management in social interaction. The study of Koutroulis (2001) furthermore discusses ways in which the body has been discovered and theorised, and links with Goffman's concept of stigma. Menstrual blood is viewed as dirty and not seen as a normal biological process of a girl's body because of culture, tradition, stigma and secrecy surrounding menstruation.

2.2.2. Support structure and systems

Loughnan (2016) states that half the global population menstruate during the puberty and adolescent phases of their life cycle. Often water, sanitation and hygiene are overlooked in society and at schools. Additionally, half a billion women globally defecate in the open and lack privacy for menstruation and hygiene management. Menstruation, if not correctly managed, can create many challenges for a female's life in the public and private domain. For example, when menstruation happens at school or in a social setting, the lack of adequate menstrual hygiene facilities and material can cause anxiety. Proper infrastructure for water and sanitation are crucial to improve menstrual hygiene management within the school environment.

2.2.3. Legislation and policies

According to Koutroulis (2001), Dr Jyoti Sanghera, from the office of the High Commissioner for Human Rights in the United States, explains that stigma surrounding menstruation and hygiene management is in violation of a woman's human rights and the right to human dignity, non-discrimination, equality, health, privacy and bodily integrity. The use of the human rights perspective highlights the fact that menstrual hygiene management is a priority.

2.2.4. Education and information

The Press Association (2018) published an article on International Menstrual Hygiene Day, 28 May, regarding menstrual hygiene management. The article cited a study conducted in the United Kingdom that found that one in five girls and young women are bullied because of their periods (Press Association, 2019: 1). Furthermore, it was discovered that two-thirds of the schoolgirls in the United Kingdom are absent from school because of their periods due to stigma and shame. These issues also affect a girl's confidence, self-esteem and education. Absenteeism has an impact on equal education because girls struggle to catch up with their schoolwork. The United Kingdom announced in 2019 that menstrual hygiene products would be provided free to schools and hospital patients in England (Press Association, 2019: 1). It is interesting to note that, as indicated by Johnstone et al. (1927), researchers in the British Medical Journal believed that it was necessary to explain menstrual function to girls before puberty and that simple teaching, individually rather than through class instruction, was desirable. The article highlights further that the mother is the primary source of information for the girls with the onset of menstruation.

During my research for the appropriate literature for menstrual hygiene management, I noticed that the researchers from the Global North mostly conducted their research on menstruation and hygiene management in the Global South. The Global North, while it also experiences sociocultural issues such as stigma, bullying, and teasing when girls are menstruating, is in a better position to provide resources for support structures and systems for menstruating schoolgirls than the Global South. Boys and girls are both educated on the subject and obtain accurate information about reproductive health from their teachers.

2. 3. Global South

2.3.1. Socio-cultural practices

2.3.1.1. International

The purpose of MacRae's (2019) study in Odisha, India, was to redefine adequate menstruation and hygiene management at the various life stages of women. It was found that an inadequate structural environment, lack of resources, lack of information and little support could impact girls' and women's self-esteem, self-confidence, bodies, educational experiences and could also incur negative health outcomes. Women and girls who experience taboos and stigma surrounding menstruation may observe secrecy, shame, decreased mobility, and social and religious disengagement which further impacts on their confidence and self-efficacy (Chin, 2014).

Sommer et al. (2017) report that research documents experiences of menstruating girls regarding shame, fear and confusion across most countries. However, not much information is available regarding the challenges girls experience in managing their menstruation when faced with a lack of menstrual hygiene management in the school environment. There is growing evidence that gender discrimination within school environments is increasing, with female students and teachers not able to practice menstrual hygiene management with dignity, safety and privacy, which impacts negatively on their ability to succeed and thrive in the school environment. The formulation of the "menstrual hygiene management in Ten" initiative in New York in October 2014, maps out a 10-year agenda for overcoming menstrual hygiene management-related barriers experienced by schoolgirls. A study conducted by Sommer et al. (2015) defines menstrual hygiene management as a globally viewed public health issue, and Kirk et al. (2006) note that puberty and adolescence for girls can be challenging at times.

However, for adolescent girls, this stage of their life is a critical time because of identity formation and is the period of transition from childhood to womanhood. This study focuses on developing countries where physical, sociocultural and economic challenges could make menstrual hygiene management for girls in schools challenging.

Due to cultural practices in every society gender inequality between boys and girls is a contributing factor to menstrual hygiene management (Karki, 2019:19). Studies show that cultural taboos, stigma and shame surrounding menstruation also influence this practice. According to Mahon et al. (2015: 7), "girls' voices are not being heard in decision-making within the household, communities and development programmes". Men and boys thus influence the experiences of women and girls during menstrual hygiene management through different societal roles, such as husbands, fathers, brothers, students, peers, teachers, community leaders, employers and policymakers. Therefore, in patriarchal culture and tradition, males show their power with decision-making, especially regarding the provision of sanitary products and the fetching of water for the household. Daniels (2016) investigated fear, shyness and discomfort related to menstrual hygiene management in rural Cambodia. These feelings have a significant influence on girls' behaviour, confidence and decision-making both at home and in the school environment. Mahon et al. (2015) highlight the essential role of men and boys in effective menstrual hygiene management programmes in Uttar Pradesh, India. They found that boys who receive education and information with girls develop positive behaviour and attitudes towards menstruating girls.

Yilmaz (2019) discovered that the lack of education on menstruation is often due to stigmas arising from sex education which is disconnected from menstruation in developing countries due to culture and tradition. Ensuring accurate hygiene knowledge and behaviour could also be the responsibility of health professionals. A lack of menstrual hygiene management information increases the constraints on how to manage menstruation at school. The failed menstrual hygiene management intervention may be because of slow transformation of the cultural environment which makes progress difficult. The lack of support from teachers (often male teachers), teasing by peers and reduced family support is often prompted by cultural taboos and stigma surrounding menstruation.

Asha et al. (2019) focused on knowledge or education, attitudes and cultural practices of adolescent athletes around menstrual hygiene management in Bangladesh. Cultural practices

have an impact on menstruation and reproduction, and thus menstruation is considered shameful and dirty. Teachers and parents are reluctant to talk about menstruation because of the code of silence practiced in society. Many girls are absent from school or experience a lack of concentration in the classroom resulting in poor performances and increased dropout rates. The expensive commercial menstrual products, and lack of water and sanitation facilities contribute to a lack of menstrual hygiene management on social, cultural and economic levels. Yadav et al. (2017), in their study conducted in Nepal, found that behavioural change programmes were necessary for communities to “compact the deeply ingrained religious, cultural malpractices, restrictions and taboos related to menstruation”. Mason et al. (2017) explored boys’ perceptions of menstruation in India and the potential support for their sisters. Furthermore, there is little information available on the patriarchal society’s adult males’ and boys’ knowledge and attitudes towards menstruation and hygiene management. The findings in the study show that adult males’ and boys’ perceptions about menstrual hygiene management should not be ignored or forgotten. Boys should rather be involved in education around menstruation and hygiene management at schools. Therefore, this intervention of educating boys could assist the girls and the boys understanding and awareness of menstrual hygiene management.

Long et al. (2015) investigated rural Bolivia and introduced the development of a menstrual hygiene management game as a qualitative method to increase interactions and responses to questions asked about menstruation and hygiene management. The menstrual hygiene management game was a method to collect data and resulted in three types of data, namely audio recordings, written data and drawings. All the data was labelled according to the game activity, participants and school code. The researcher explained that the menstrual hygiene management game assisted in understanding the menstrual-related challenges of Bolivian schoolgirls. With the onset of menarche, the girls experienced many challenges such as shame, teasing, fear, absenteeism, lack of knowledge about menstruation, lack of water, sanitation and inadequate availability of menstrual products that contributed to poor hygiene management at schools.

2.3.1.2. Africa

According to research done in Sub-Saharan Africa, Zambia, South Africa and the Eastern Cape, girls experience various challenges relating to the physiological changes of the body, menstrual hygiene management, myths about menstruation and sanitation systems at schools. Vaughn’s

(2013) research looks at the physiological process of adolescent girls from low socio-economic areas, who experience practical challenges in terms of menstrual hygiene management, including misconceptions and myths surrounding menstruation. Vaughn (2013) further demonstrates that absenteeism from school among girls and the lack of concentration during their menstruation, impacts their education negatively. Female education intersects with several health and development outcomes, such as the lack of menstrual hygiene products, sanitation facilities and menstrual hygiene education. The provision of menstrual hygiene education needs to be expanded to improve the girls' menstrual hygiene management (Vaughn, 2013: 2).

A study by Alexander et al. (2014) in the Kenyan rural schools on water, sanitation and hygiene conditions discovered that the needs of the menstruating girls were not being met. This study showed that menstrual hygiene facilities at a primary school were inadequate and improvement to basic resources was needed. Research was also conducted on menstrual health and school absenteeism among adolescent girls in Uganda and highlighted that absenteeism from class and school undermined girls' education (Miiró et al., 2018). Furthermore, the study showed that the social and health impact of girls' experiences of menstruation and schooling, such as leakage of menstrual blood and inadequate water and sanitation facilities at schools contributed to their absenteeism. Sommer's (2010) study in Tanzania highlighted that the girls were secretive and hid the fact that they were menstruating when at school. The lack of water and sanitation and menstrual products for the girls were also contributing factors to this secrecy. The schoolgirls in this Tanzanian study recommended that the puberty curriculum should be user-friendly in content and delivery. The girls also needed guidance on how to overcome negative experiences with the onset of puberty to empower them to cope with the challenges of menstruation.

Tegegne et al. (2014) report that school absenteeism and dropout is a general problem among rural schoolgirls in Ethiopia, although it is not documented. Their study highlights that individual support for schoolgirls, especially with the onset of menarche, and separate sanitation facilities, are necessary at schools if gender equality is to achieve the empowerment of girls. Girls in Kenya also fear being teased by boys when menstruating (Korir et al., 2018). Tamiru et al. (2015) highlight baseline survey findings of current menstrual hygiene management practices in project areas of Ethiopia, South Sudan, Tanzania and Zimbabwe. The studies in these countries show that the existing cultural and traditional beliefs have negative

impacts on menstruation. Towards a sustainable solution for menstrual hygiene management, UNESCO (2014) reports that, according to traditional and cultural beliefs and practices in Africa, menstruation is one of the subjects that should not be discussed publicly. Therefore, this stigma, as a result of cultural and traditional beliefs, contributes to a lack of support at home and outside the family and results in poor menstrual hygiene management.

Boakye-Yiadom et al. (2018) examined the knowledge, attitude and practices of menstruation and hygiene management among pre- and post-menarche adolescent girls in primary schools in Ghana. The findings of their study show that the girls have adequate knowledge of menstruation and are aware of their bodies. However, a positive attitude towards menstrual hygiene management did not exist. The reason for this is due to harmful sociocultural norms and practices that impact negatively on menstruation due to stigma. Shah et al. (2019: 13) agreed and focused on the rite of passage in Gambia. In rural Gambia, the topic of menstruation is taboo, secretive and an embarrassment. Therefore, girls avoid communicating with their parents and teachers and seek information on appropriate menstrual hygiene management from their peers. Strategies to encourage positive behaviour and attitudes towards menstruation will assist with open discussions in families and communities. This intervention will create a supportive environment for girls to manage their periods with dignity, safety, comfort and confidence.

Ndlovu and Bhala (2015) noted that rural schools in Zimbabwe show embedded power relations, a culture of silence around menstruation, no involvement of men in menstruation and hygiene challenges. Furthermore, inadequate information, poor infrastructure, a lack of menstrual hygiene products due to poverty and poor waste disposal practices at schools have impacted on menstrual health management. The Guardian (2019) reported that a Kenyan schoolgirl committed suicide after alleged period shaming by a teacher. The stigma surrounding menstruation translated into a self-fulfilling prophecy influencing her death. It was the schoolgirl's first menstruation and she had not received any preparation or information on menstruation and hygiene management before the onset of menarche. The teacher's role as a display of a powerful male with no empathy is related to patriarchal shaming (Hervey, 2019).

Smiles et al. (2017) conducted a study on girls' experiences of menstruation in Ethiopia. The study focuses on body changes during the adolescent phase, menstrual management and menstruation-related discomforts such as cramps, nausea and fatigue. Also included were

cultural beliefs such as menstrual taboos, situations such as early marriages, restrictions placed on girls socially, and their behaviour during menstruation. These contributing factors affect the girl's transition into womanhood. Furthermore, Smiles et al. (2017) discussed that Boosey and Wilson discovered that the description of sexual and reproductive health is an "overwhelming silence".

2.3.1.3. South Africa

The research study conducted by Devnarain and Matthais (2011) focuses on the learners' experiences and coping strategies specific to the gender division of labour in schools in Jozini, Umkhanyakude District Municipality, KwaZulu-Natal. Unequal division of labour is a burden that girls in this study carry because they are required to fetch water for school and at home whenever necessary, due to lack of water and sanitation. Boys are not required to assist with this task and so girls miss out on classes which affects their education.

Ramathuba (2015) researched the menstrual knowledge and practices of female adolescents in the Vhembe district, Limpopo Province. Although sexual issues are discussed in the media, sexuality and reproductive functions are treated as taboo subjects. Menstruation carries various meanings within cultures and is seldom discussed among families and communities. The majority of adolescents lack biological knowledge of menstruation and puberty. Parents are often reluctant to discuss menstruation with their adolescent girls. Sociocultural beliefs with the onset of menarche and hygienic practices negatively impact on the health of adolescent girls. Ramathuba (2015) believes that reproductive health should start from puberty so that young women are empowered to start adopting healthy lifestyles and can develop adequate skills for sexual and reproductive health in the future.

Further research has been conducted by Paphitis (2017) on menstruation relating to the Critical Health Education Project in South Africa. Kelland (2016), from Rhodes University, South Africa, confirms that the Siyahluma project group, working to change the conversation surrounding menstruation, was established in 2014. Rhodes University, in partnership with schools in the Eastern Cape, researched how menstrual hygiene management challenged schoolgirls. The study discovered that there was a lot of stigma and taboo surrounding the topic of menstruation. Grade 7 boys were interested in talking about menstruation, and this created an opportunity for health education, particularly around menstruation. It is therefore necessary to include boys in the conversation about menstruation in primary schools.

Padmanabhanunni et al. (2017) conducted a study on the menstruation experiences of South African women belonging to the ama-Xhosa ethnic group in the Eastern and Western Cape. The study focuses on the salience of cultural beliefs and traditional rituals to women's experiences of menstruation. In the ama-Xhosa ethnic group, there are specific cultural practices linked to menstruation, such as the female rite of passage and virginity testing. The research findings highlight that the women are conflicted about traditional beliefs and practices because they cause embarrassment and ownership of their sexuality. Additionally, the negative characterisation of menstruation had consequences for the women's relationships with men.

Padmanabhanunni and Fennie (2017) investigated the attitude and experiences surrounding menstruation among undergraduate female students at a historically disadvantaged South African university. In developing countries, the experiences of women around menstruation have impacted on socio-cultural and demographic issues, such as attitudes related to menstruation. In South Africa, women experience menstruation as a stigma and see their bodies as a disgrace and as shameful. Women feel that menstrual blood decreases their male partner's sexuality. The study found that there is insufficient information on South African women's attitude towards menstruation, and how it impacts their daily lives and educational careers.

Stroud (2018) reported that girls need to understand that menstruation is a normal physiological process of their bodies and that they are not ill when they menstruate. There is no shame attached to menstruation. Eusebius McKaiser (presenter of 702 radio station at the time), hosted the co-creator of the Mina Menstrual Cup and made the following statement regarding menstruation: "We live in a society that thinks we can give out free condoms but not free sanitary towels, even though, as a man, as a teenage boy, I can choose not to have sex, not to ejaculate, but the girl child, girls, women, cannot choose whether or not to menstruate" (Stroud, 2018: 1). This statement highlights that men have a choice not to have sex, but women and girls are not able to choose whether to menstruate. However, menstruation is viewed continuously as an embarrassment, a taboo subject and is surrounded by a code of silence at school and home.

2.3.2. Education and accurate information

2.3.2.1. International

Menstruation and body awareness links girls' health with education in sub-Saharan Africa and Asia, and Thakre et al. (2010) conducted a study in Saoner, Nagpur district on menstrual hygiene, knowledge and practices. The study emphasises the need for adolescent girls to have accurate and adequate information about menstruation and good hygiene practices. Additionally, Delhi's declaration of menstrual hygiene management in 2008 was "sanitation for dignity and health for all women" (Thakre et al., 2010).

According to Bobel (2019: 95), Menstrual Hygiene Day was initiated to make people aware of the importance of menstruation and hygiene management for girls and women globally. As a result of this, the previously neglected topic became one of global importance. The inaugural Menstrual Hygiene Day was commemorated on 28 May 2014 and, since then, is celebrated annually on 28 May.

2.3.2.2. Africa

Geertz et al. (2016), one of the researchers, is the associate director of a non-profit organisation that is a mission-driven consulting firm that supports leaders in creating lasting social change. Geertz et al.'s (2016) report refers to studies in South Asia and Ethiopia that found that girls had never heard of menstruation before the onset of menarche and were not aware of where the blood came from. In Ethiopia, girls did not use menstrual hygiene products and isolated themselves during menstruation.

Namambi et al.'s (2011) study in Windhoek, Namibia, explored school-based sex education programmes recognised as tools for the preventing HIV/AIDS epidemic. The programme aims at improving communication between a parent and child regarding reproductive health. In Africa and Namibia, there are limits to school-based sex education. These limits include the difficulty of communicating with parents about sex, lack of communication skills due to lack of knowledge around reproductive health, and the tradition and culture where parents do not talk about sex. Parents and children experience difficulties with home-based sex education (Namambi et al., 2011: 129). Peer-led education on health promotion strategies is more effective and accessible as a method for teaching health education in schools. Peer-led education is one of the strategies used to empower students (Franz, 2015). Menstruation is

viewed as a taboo topic and the girls of Windhoek in Namibia would rather ask their friends or siblings advice about menstrual hygiene management.

2.3.2.3. South Africa

Nanda, Lupele and Tharaldson (2016) define menstruation as a natural physiological process for adolescent girls and women of reproductive age, in which blood is discharged through the uterus and flows through the vagina every 28-35 days, for between two and seven days per month. Girls from low socio-economic backgrounds experience the practical challenges of menstrual hygiene management, including misconceptions and myths surrounding menstruation. Nanda et al. (2016) discuss menstrual hygiene management where women and adolescent girls, who use clean material to absorb blood, need privacy to change the material. Schoolgirls should have a positive experience of education, however with the onset of menstruation this can only occur in a girl-friendly school environment (Nanda et al., 2016: 19).

Pietersen (2018) explored the influence of beliefs and attitudes towards menstruation of a group of female university students at Stellenbosch University, Western Cape. Women and girls reported that their mothers were their primary source of information about menstruation. Pietersen (2016) indicates that it is necessary for mothers and fathers to have conversations about menstruation, in order to destigmatise the subject. Glover's (2017) study further notes that in Makhanda, young men's perspectives regarding menstruation were demeaning and created a distance between men and women who were menstruating (Glover, 2017: 99). Glover and Macleod (2016) provide an overview of the implementation of the National Adolescent Sexual and Reproductive Health and Rights Framework Strategy 2014-2019 (Department of Basic Education). They indicate that Life Orientation as a subject does not include adolescent sexual and reproductive health in the curriculum.

2.3.3. Support structure and systems

2.3.3.1. International

A report by Nahar and Ahmed (2006), in Bangladesh, addresses the unique needs and challenges of girls in schools in Bangladesh. They note that "the knowledge and life skills to maintain a healthy lifestyle are usually learnt from parents, family, neighbours and school in childhood" (Nhar and Ahmed, 2006: 2). Most of the hygiene education in these schools excludes menstrual hygiene, and even sanitation programmes ignore menstrual hygiene management in the design and building of toilets. Most schools have deplorable sanitary

conditions and absolutely no accountability for the unique needs of a girl's menstrual hygiene management. Menstrual hygiene products do not reduce the school attendance of girls in Nepal. Among the contributing factors affecting menstruation is low-income, inferior sanitary products as well as cultural restrictions (Sivakami et al., 2018). The inadequate provision of water, sanitation, hygiene facilities and access to sanitary material pose common challenges that negatively affect education, health and psychosocial outcomes for schoolgirls in India (Davies et al., 2018; Yilmaz et al., 2019).

Mahon and Fernandes (2010) conducted research in South Asia on menstrual hygiene as a neglected issue in water, sanitation, and hygiene programmes. Millions of South Asian women and girls are “denied their right to gender equality, education, access to safe water and sanitation, health, and a life of dignity” (Mahon & Fernandes, 2010: 111). House et al. (2013) agree that menstrual hygiene management can improve menstrual hygiene globally. Oster and Thornton (2011) note that improved sanitary products, such as a menstrual cup or supply of disposable sanitary products, do not have an impact on the attendance of the schoolgirls at schools.

According to a study by Alam et al. (2016) in Bangladesh, adolescent girls in low-income and middle-income countries lack adequate facilities and support to manage menstruation and hygiene at schools. Poor menstrual hygiene management has an impact on the education of schoolgirls which results in absenteeism and poor school performance. Therefore, the study recommends that female teachers prepare girls and provide accurate information before menarche begins to improve menstrual hygiene management.

Elledge et al. (2018) conducted a study of menstrual hygiene management and waste disposal in low- and middle-income countries in India. Elledge et al. (2018: 2) note that “women have specific needs, preferences, access requirements and utilisation patterns and experiences” when menstruating. Poor menstrual hygiene management influences the psycho-social health of women and girls. Menstrual hygiene management is not directly included in the World Health Organisation’s sustainable development goals (UNICEF, 2016). Menstruation and hygiene management are integrated into various sustainable development goals such as the physical and psycho-social health of women and girls, quality education for girls, gender empowerment and equality, water and sanitation and responsible consumption and production for the environment. The study focuses on the toilets designed to cope with menstrual hygiene

practices, the sale of menstrual products and the disposal of used menstrual products which serve as yardsticks in measuring the support of women's health and dignity.

Ellis et al. (2016) conducted a study in the Philippines, investigating water, sanitation and hygiene conditions and inadequate menstrual hygiene management which prevents schoolgirls from managing their hygiene and menstruation. Identified barriers to effective menstrual hygiene management included inadequate access to water, sanitation facilities, lack of waste disposal facilities and dirty facilities. The challenges at schools in the Philippines were due to the lack of supervision of the systems at schools, cleaning of toilets, maintenance, access to water and disposal methods at schools. Therefore, girls were unable to manage their menstruation and hygiene effectively at school.

2.3.3.2. Africa

Dolan et al. (2013) researched the impact of sanitary pads and education during the puberty phase on the school attendance of post-pubertal girls and the implications that menarche has on their wellbeing in Ghana. They found that the provision of sanitary pads is not sustainable. The provision of sanitary pads alone cannot address the challenges other contributing factors such as gender discrimination, sociocultural norms, inequitable educational culture, and poor school infrastructure that continue to impact on girls' education.

The management of menstruation as a barrier to girls' education in low-socio-economic areas creates many challenges in achieving quality education for all girls in the future. The progress made in education for girls is not equal, and poor girls remain the most disadvantaged, facing many barriers to school enrolment, attendance and achievement (Hennegan et al., 2017: 3). A study done by Hennegan et al. (2017) describes the advantages of reusable sanitary pads and puberty education in rural Uganda. The provision of sanitary towels was shown to assist with the soiling of clothes but did not address other menstrual hygiene management challenges and the drying of reusable pads. The research further highlights that social support from teachers and peers is an essential driver to the effects on menstrual hygiene management.

A report from the United Nations Children's Emergency Fund (UNICEF) states that half of schools in developing countries lack sufficient sanitation for girls. Some actors in society such as fathers, mothers, siblings and teachers should consider that human rights and dignity is the primary goal for the investment in menstrual hygiene management (Winkler, 2015: 37). Other

programmes, such as water, sanitation and hygiene programmes, focus on the need to understand poor menstrual hygiene management and menstrual health more deeply in order to influence a more comprehensive set of health and development outcomes before committing economically. Menstruation and hygiene management practice should be taught to both boys and girls to be effective. Research conducted on adolescent experiences of menstruation in rural Kenya by Secor-Turner et al. (2016) discovered that girls miss nearly 3.5 million school days per month in Kenya because of inadequate access to menstrual hygiene products and inadequate sanitation facilities.

A research study by Joshi et al. (2015) discusses how water, sanitation and hygiene policymakers, donors and practitioners focus on menstruation as a health and education challenge, especially for adolescent girls in developing countries such as Ghana. Joshi et al. (2015) state that the water, sanitation and hygiene sector ignored menstruation and treated it as a taboo topic. In 2014, 28 May was declared Menstrual Hygiene Day to break the silence around menstruation and to highlight the importance of menstrual hygiene management. Pillitteri (2012: 17) agrees, stating that "school menstrual hygiene management in Malawi is more than toilets".

Murye and Mamba (2017) researched the waste disposal system for used menstrual products at a public school in Swaziland. The school utilised bins to collect menstrual waste deposited in toilets and burnt them on the school's premises. The open burning polluted the environment and contributed to poor menstrual hygiene management. It was recommended that used menstrual products be burned, but not on the school's premises. A study in rural schools in Zambia by Chinyama et al. (2019) highlights that adolescent schoolgirls require an environment that is supportive of menstruation and hygiene management to ensure that they attend school regularly and participate in school activities. For the equal provision of education for girls, there should be adequate menstrual products, water, sanitation and hygiene facilities and comprehensive education about menstruation at schools, which includes educating the schoolboys.

2.3.3.3. South Africa

Research on the correlation between menstrual hygiene management and sanitation systems in schools in KwaZulu-Natal, South Africa, was conducted by Okem, Roma and Wilmouth (2013). They discovered that the disposal of sanitary material caused faulty sanitation systems,

which resulted in an increase in operation and maintenance (O&M) costs and public health issues. The eThekweni Water and Sanitation Unit and the Operation and Maintenance Division were unwilling to take responsibility, and this highlights the need for all stakeholders to be committed to adequate sanitation. Further research has been conducted on menstrual hygiene management amongst rural high schools in the North West Province, South Africa, by Chikulo (2015), who found that schools are affected by a lack of water access.

LexisNexis South Africa sponsored a South African community project (2019) involving a group of influential South African women with Professor Thuli Madonsela as their leader and raised funds for sanitary wear and education for girls. In celebration of International Menstrual Hygiene Day on 28 May, these women climbed Mount Kilimanjaro in Kenya in August 2019. UNESCO reports that one in 10 girls in Sub-Saharan Africa are absent from school when menstruating. Studies report that African girls are absent for up to 50 days of school annually due to the inaccessibility of basic needs when menstruating. In April 2019, value-added tax (VAT) was scrapped on sanitary pads in South Africa, in recognition that these are essential products. Impoverished girls in these communities experience a daily struggle because of lack of resources such as finances, menstrual products and water and sanitation facilities. The lack of support, understanding and empathy for young girls during puberty and menstruation within the school environment affects them negatively. They are often unprepared and do not have the necessary resources available to provide sufficiently for their needs in order to maintain their dignity.

Ndamase's (2019) article in the Daily Dispatch newspaper reports on the provision of sanitary pads to poor Eastern Cape pupils by the Eastern Cape Department of Social Development. This department allocated R22.8 million for the provision of sanitary pads for impoverished schoolgirls. The partnership between the Departments of Social Development, Education and Health will strengthen the sanitary dignity programme for schoolgirls from Grades 4-12 in underprivileged schools to ensure their dignity. According to research conducted in Gauteng by Crankshaw et al. (2020), one in seven girls reported not having sufficient menstrual products for their monthly periods which could cause absenteeism from school due to insufficient sanitary products. These girls develop low self-esteem, a lack of skills, an increase in illiteracy, and decreased ability to be employed.

2.3.4. Education and Menstrual Hygiene Management information

2.3.4.1. International

Kumar et al. (2013) researched menstrual hygiene practices amongst rural adolescent girls at community schools in Varanasi, Uttar Pradesh, India. The study shows that there was a lack of information amongst the girls before menarche. Mothers and sisters were the primary sources of information about menstruation for these girls. However, girls with less education had mothers who were illiterate, sometimes resulting in poor menstrual hygiene management. Teachers at the schools neglected to impart information on menstrual hygiene management to their learners. The findings of the study show that educational institutions are the ideal places for teaching menstrual hygiene practices. Learners spend more time at school than at home, and therefore education and the transferring of accurate information about menstruation and hygiene management should take place at school.

Davis et al. (2018) focussed on menstrual hygiene management and school absenteeism amongst adolescent students in Indonesia. They found that the lack of information about menstruation and hygiene management could result in girls having regular episodes of less school participation and increased absenteeism. This in turn could negatively impact their school performance, increase dropout rates and decrease educational achievement. Inadequate education and information about menstrual hygiene management could have a long-term effect on gender inequality, economic and health outcomes. The researchers highlight frequently reported inappropriate responses of teachers and students that could be associated with poor menstrual hygiene management and absenteeism because of menstruation. To improve school attendance, Yilmaz (2019: 2) explained in his study that the term software is “improving hygiene knowledge and management deficits through educational training” and the provision of menstrual hygiene kits for schoolgirls. The accurate information and knowledge about menstruation and the menstrual hygiene kit could assist these girls with the management of their menstrual health.

Tamiztousi et al. (2019) investigated the effectiveness of menstrual health education on girls’ knowledge, attitudes and practice in Iran. Different psychological changes happen during puberty specific to the start of menstruation. During menstruation, women and girls in Iran often lack the knowledge and information about menstrual hygiene management and can develop negative attitudes. Through health education, incorrect attitudes and behaviours could

improve and the processes of strengthening skills and empowering peers could be more effective than the classic method of booklet and classroom lectures.

The World Health Organisation defines adolescence as the period between 10-19 years of age (Kumar et al., 2013: 19). The most significant changes in the adolescent phase occur during the onset of menarche. In Indian society, menstruation is still seen as unclean and is surrounded by myths and misconceptions. Adolescents are dependent on mothers and other family members for information regarding menstruation. A study conducted by Kumar et al. (2013) in Uttarakhand, India, discovered that educated adolescents did not discuss menstruation challenges with their parents, reflecting poor communication between them. Girls should be educated through educational television programmes, compulsory sex education and knowledgeable parents. All parents should be educated about menstruation and hygiene management irrespective of their educational status, to enable them to transfer accurate knowledge about menstruation to their daughters before menarche.

2.3.4.2. Africa

Wall et al. (2016) investigated the knowledge and menstrual beliefs in Tigray, Ethiopia. They explain that menstruation poses two important questions for women. The first is: ‘What does menstruation mean?’. The second question is: ‘How should women manage the menstrual discharge?’. The two questions arise quite frequently at menarche and are important biologically and socially. In Africa, there is increasing evidence that menstrual hygiene management could be a barrier to the improvement and progress of women and girls, especially for adolescent girls in poor communities. Therefore, there is a need to improve the education around menstrual hygiene management and to provide access to low-cost, reusable sanitary products for the girls in Tigray region. The community-based Menstrual Dignity Project is a combined effort by Mekelle University, sanitary product factories, and the Dignity Period Non-Profit Organisation based in the United States. The goal of this project is to improve knowledge about menstruation and to provide affordable local reusable menstrual products in Northern Ethiopia.

Garba et al. (2018) focus on menstrual hygiene management in Kano, Nigeria. Adolescent girls often lack adequate information and education about reproductive health and menstruation because of the sociocultural barriers they encounter. The goal of the study was to investigate the knowledge of menstrual hygiene management and the waste disposal methods among

adolescent girls. The study focuses on menstrual hygiene management in resource-poor countries in sub-Saharan Africa and South Asia. Adequate menstrual hygiene management is not appreciated in affluent countries, while inadequate menstrual hygiene management in developing countries affects women's and girls' health and development. Gender equality in education is an essential cornerstone for social and economic development. The study emphasises that adolescent girls usually start menstruation while at school. Therefore, the integration of menstrual hygiene management is an important issue that should be included in girls' education, for empowerment and social development (Kulmann et al., 2017). Guya et al. (2014) focus on menstrual hygiene management in high schools in Tanzania. Most of the girls lacked information on menstruation and hygiene management and preferred to receive knowledge at school. Guya et al. (2014) further identified a lack of sanitation facilities, such as handwashing facilities and soap, the availability of free menstrual products, waste disposal facilities and privacy. Recommendations from this study include the provision of these facilities and the inclusion of compulsory menstrual health education in the school curriculum for all learners at primary and secondary school levels.

2.3.4.3. South Africa

A study of menstrual hygiene management, sanitation and the quest for privacy in South Africa was conducted by Scorgie et al. (2016) in KwaZulu-Natal. In this study, women used sanitary disposal products; however, the disposal of the used sanitary products was a challenge. Globally, women choose different menstrual products for absorbing menstrual blood, and the related waste disposal methods remain a challenge. The choices women and girls are confronted with are influenced by their knowledge about menstruation, sociocultural taboos and personal preference. The two types of menstrual health products are biodegradable and non-biodegradable, which impact on the sanitation structures and the environment. Both products play an essential role in determining the amount of waste and type of disposal method. The study in KwaZulu-Natal by Scorgie et al. (2016) discovered that women need privacy during menstruation to perform the local norms of hygiene, care and dignity, and this shapes how they dispose of the menstrual product and the way they use and manage the sanitation system. The disposing of menstrual waste receives little attention. Scorgie et al. (2016: 172) maintain that menstrual hygiene management should meet the local standards of dignity, safety and hygiene.

Kgware's (2016) study gathered baseline information on KwaZulu-Natal adolescent girls' knowledge, practices, perceptions and needs in relation to menstruation and hygiene management in South Africa. The study highlights issues at schools related to cultural practices, education about menstruation, access to menstrual hygiene products, sanitation and the psychological trauma girls experience during menarche. Furthermore, the study also tried to capture the emotions and experiences of girls and their menstrual hygiene management knowledge (Kgware, 2016: 5). It was found that inadequate sanitation and hygiene management was a barrier to schoolgirls' attendance which further impacted on their education. The study recommends the provision of safe water and sanitation, which is necessary to improve menstrual hygiene management and absenteeism, and the promotion of hygiene education (Kgware, 2016: 46).

2.3.5. Policy and legislation

2.3.5.1. International

Muralidharan et al. (2015) considered the implications for school WASH (water, sanitation and hygiene) programmes by unpacking the policy on menstrual hygiene management in India. The document review found that adolescent girls are the primary focus of most of the policy initiatives addressing menstrual hygiene management, infrastructure, sanitary products and health education. Winkler and Roaf (2015: 1) explored challenges for menstrual hygiene management practices at a practical and policy level, which continues to show how menstrual hygiene is connected with particularly gender equality within the human rights framework. This framework may contribute to giving menstrual hygiene greater visibility and prioritising the development of appropriate strategies and solutions.

2.3.5.2. Africa

Boosey et al. (2014) explored the menstrual hygiene practices and knowledge of girls at rural public schools in the Rukungiri district in Uganda and investigated how these practices contributed to poor menstrual hygiene management and impacted their education. Boosey (2014: 2) believes that girls have a human right to education and to educate girls is a good investment for future development, as it will produce long-lasting and continuous education practices amongst families, communities and future generations.

2.3.5.3. South Africa

The Constitution of South Africa 1996, Chapter Two of the Bill of Rights, emphasises that the rights of South Africans be enshrined and states the democratic values of the people's dignity, equality and freedom. Section 29 (1)(a) further states that every child has the right to primary education, provided through reasonable measures and made progressively available and accessible. Furthermore, the Constitution also affirms equality for all citizens, including learners, and section 9(3) and 9(4) of the Constitution states that "no person (including learners) may be directly or indirectly discriminated against by race, gender, ethnic or social background." Section 10 of the Constitution states that all humans have inherent dignity and the right to their dignity should be protected and respected. This includes that girls should be able to experience their period with dignity, respect, safely and comfortably wherever they are publicly and privately and, especially, at school.

Research conducted in South Africa by Chikulo (2015) concluded that the lack of access to water in North West schools impacted on the education of girls during menstruation. This aspect is of particular importance to the Makana district with its current non-availability of water due to poor infrastructure. Water and sanitation are essential issues to consider when assessing the school environment and whether it offers women and girls the necessary privacy, dignity and sanitation to manage their monthly menses. Studies by Abrahams et al. (2006) and Okem et al. (2013) focus on water, sanitation and hygiene (WASH) programmes that examine socio-economic, behavioural and environmental issues in communities. These intervention programmes can improve or create effective menstrual hygiene management for the girls.

The Schools Act 84 of 1996 demands that South Africa provides progressively higher quality education for all learners, thereby establishing a strong foundation for the development of all people's talents, capabilities to advance the democratic transformation of society and combat unfair discrimination, such as sexism. Schools have a responsibility to create a safe environment for education, including teaching the topic of menstruation to all learners. Allen (2010: 130) argues that the exclusion of boys from menstruation education may affect their attitude towards and treatment of schoolgirls. These boys, due to lack of knowledge, may bully and tease girls who are menstruating.

The Adolescent and Youth Health Policy of 2017 promotes the health and wellbeing of young people, aged between 10 and 24 years. The health of the youth is affected by structural, familial, and social factors including harmful gender norms, victimisation and social isolation (Department of Health, 2017). Ramathuba (2011: 44) argues that accurate information on menstruation with the onset of menarche could have positive impacts on the experience of menstruation. Health promotion and the Youth Health Policy could assist with menstrual hygiene management by including sections on the topic of menstruation and menstrual hygiene management.

Geismar's (2018) study critically examines the Implementation and Project Dignity impact on the students' educational experiences and menstrual hygiene practices in KwaZulu-Natal. The researcher states that "menstrual health management is a public health concern in South Africa" (Geismar, 2018: 8). However, despite the existence of various legislation, including the 1996 Constitution of South Africa, International Convention on the Rights of the Child, Africa Charter on the Rights and Welfare of the Child, Convention on the Elimination of All Forms of Discrimination Against Women and the 1995 Beijing Declaration, which seek to protect and promote women's and girls' human rights, and rights to dignity and gender equity, these are often not implemented (Geismar, 2018: 8). Inequality still exists between the public commitment to gender equity and the reality faced by women and girls in South Africa. The 2017 Draft Sanitary Dignity Policy Framework aims to ensure the provision of sanitary products for indigent women and girls to manage their menstruation in a safe, knowledgeable and dignified way (Geismar, 2018: 8). Therefore, it is imperative to know that the provision of only sanitary products will not improve menstrual hygiene management. However, there are multifaceted issues which contribute to poor menstrual health management.

In terms of legislation and policies for the promotion of school health education, the World Health Organisation (WHO) regards health as an essential human right. South Africa's National Health Promotion Policy and Strategy (2015-2019) considers health promotion as "the process of enabling people to increase control over health and its determinants, and thereby improve their health" (Health Promoting Policy, 2015: 6). The National Health Promotion Policy and Strategy provides broad guidelines to stakeholders to promote health through empowering people, families, communities and society to take responsibility for their health. It also aims to integrate health promotion in education, community development policy, legislation and regulations, and therefore, have been more successful in implementing policies in the

prevention of communicable and non-communicable diseases. The National Health Promotion Policy did focus on promoting menstrual hygiene management at schools. The Integrated School Health Policy promotes the development of all children, yet this poses a substantial challenge in South Africa. According to a study by Keothaile (2016: 27) on the implementation of the School Health Policy in the North West Province, South Africa, educators lack an understanding of the policy and as a result are unable to implement the policy. Educators therefore negatively influenced the implementation of the policy. Furthermore, the lack of an allocated health representative to take responsibility creates more challenges. The poor implementation of the School Health Policy could impact on the availability and accessibility of health resources in the school environment. In addition to addressing the adverse effects of Apartheid and the underdevelopment of the school system presently, the country is facing issues in schools such as inadequate infrastructure and menstrual hygiene management challenges that have not been previously addressed (Department of Health, 2015).

2.4. Conclusion

The literature review covered menstrual hygiene management in international, African and South African countries and has provided insight into the challenge's schoolgirls experience at schools with adequate menstrual hygiene management. Reading the literature, I discovered that menstrual hygiene management is a big challenge in Global South countries and the approach of menstrual hygiene management interventions should be a holistic one to ensure a safe and comfortable transition from childhood to womanhood. More attention should be given to infrastructure at schools to ensure that menstrual hygiene management does not only involve the provision of sanitary towels. Therefore, the research study of menstrual hygiene management practices at schools could inform policy in the education sector and empower schoolgirls.

In this literature review, I identified challenges at schools that affect girls and their education. The literature review is linked to the research goals of the research proposal, such as menstrual hygiene management and to explore the menstrual hygiene management and practice of schoolgirls. The primary goal is to explore the educators' perceptions around menstruation and their attitudes and behaviour towards menstrual hygiene management. This includes investigating their knowledge and how they transfer information to their learners and identifying perspectives on gender equality and support systems within the school

environment. Furthermore, this study seeks to investigate the access to water and sanitation and waste disposal options within the school environment.

Chapter 3: Theoretical framework

3.1. Introduction

Theories provide a framework in which to examine social interactions and behaviours. Symbolic interactionism provides a different perspective to sociology and gives the individual the same importance as the subject being researched. Symbolic interactionism, first introduced by Mead (1934) and later popularised by Blumer (1986), offers a small-scale view of society and perspective, based on meaning. Meaning for individuals is constantly created and recreated because of an interpretation process and, as a result, social interaction with other actors. Symbolic interactionism is applicable in this research because the educators and other actors offer different meanings and interpretations regarding menstruation and hygiene management that influence the individual's experience of menstruation.

Symbolic interactionism is a framework that provides a way of looking at society as an environment, with objects and individuals within that society (Stryker 1980: 8). It assists the researcher by allowing meaning and interpretation to be developed by interpreting the facts of the environment and social relationships of the “intrapsychic forces”, which give meaning to the interaction of the participants (Stryker, 1980: 9). Menstruating schoolgirls will experience different emotions when starting menarche. They could feel anxious and scared when experiencing their first menstruation at school. The experience could create an awkward situation for the individual because of a lack of knowledge about menstruation and hygiene management. In certain sociocultural societies, menstruation is a taboo subject and, often, girls are not adequately informed about or prepared for menstruation. Menstruation is generally not discussed in African culture. The Constitution of the Republic of South Africa (1996) emphasises the rights to dignity, equality, freedom and primary education. Therefore, all schoolgirls should be allowed to experience, from the beginning of menarche, a stress-free, dignified journey into womanhood.

3.2. Definition of symbolic interaction

Blumer developed the concept of symbolic interactionism (Stryker, 1980: 15). Symbolic interaction can be defined as individuals' actions based on the interpretation (symbolic) of one another's actions rather than a response (non-symbolic) to each other's activity. However, the reaction of an individual attaches meaning to their activity (Blumer, 1986: 79). This interaction

with an individual could result in a response to the act through the use of symbols, such as language or communication, followed by an interpretation of the meaning of each other's interactions (Blumer, 1986: 79). Different sexes will experience the changes in their bodies differently. Boys often experience physical changes in a more positive light, while girls might perceive menstruation negatively if the experience of menstruation by society, in which interpretation and meaning are ascribed, is not positively supported. Physical support, such as the provision of water and sanitation and access to menstrual pads, all affect an individual girl's experience of menstruation.

3.2.1. The actor

Mead (1934) believes that in order to interpret human action and association, an understanding of humans as 'actors' is necessary. The main principle in Mead's analysis of the human being is that of 'self' (Blumer, 1986: 79). Blumer (1986: 84) confirms that the 'self' responds on a symbolic or non-symbolic level. Symbolic interaction can be described as the interpretation of the action taking place and non-symbolic interaction as the immediate response to the action without interpretation (Blumer, 1986: 8). Mead (1934) argues that human beings act according to their beliefs and how they interpret the world around them. Mead assumed that the social interaction provided a pragmatic account (Blumer, 1986: 8). This provides an opportunity for human beings to observe their environment and decide on an appropriate action. Everything in the environment that an individual is conscious of can be viewed as relating to the self. For example, when someone passes a remark, this will be processed based on the individual's understanding. Humans can, therefore, be seen as organisms that confront and use mechanisms in relation to the self. Mead further argues that human beings could be objects of their own actions (Blumer 1986: 79). According to Blumer (1986: 12,13), the self, which becomes visible through the process of social interaction, can also become an object, where the person can see her/himself "from the outside". This will only be done when the person needs to see her/himself from the position of others, in order to become a "self-object".

Individuals form objects of themselves by developing a role. The different roles that individuals adopt are experienced in different stages, i.e. the discrete individual ('play stage'), where a young girl copies the role of her mother; the discrete organised group ('game stage'), where a girl forms part of a small group of girls sharing the same experiences; and the development of a child's identity within abstract communities ('generalised other'). Blumer (1986: 10,11) defines social objects as having the following roles: mother, student and friend. Human beings

interact with themselves and not only with others as a “self”. The nature of the object has meaning for the individual, who sees it as an object, and it can therefore have different meanings for different people. An example is when an individual is embarrassed with her/himself or talks to her/himself as a way of internalising the facts of an object. When a boy teases a girl, who is menstruating at school, both the girl and boy are embarrassed for different reasons, based on the meaning of the object (menstruation). The human being who is involved in self-indication does not react only as an organism, but also as an acting organism. Human beings therefore confront the world and respond according to the meaning they construct for themselves. An individual has to cope with the situations he/she finds him/herself in, and act or determine meaning based on the actions of others and interpretation of these actions. The individual has to construct his/her own action irrespective of the response or outcomes of that situation. The thought process of an individual is guided by suggestions and interpretations which only take place through interactions with others and the “self”, within the world around the individual (Blumer 1986: 16).

3.2.2. Object

Blumer (1986: 68) explains that the world in which human beings live consists of objects, and the activities of individuals are built around these objects. Blumer (1986: 68) notes that objects for Mead are human constructs and not self-existing entities. Objects can be referred to or labelled as the following: (1) physical objects such as a chair, car, or stars; (2) social objects such as mother, student or teacher; and (3) abstract objects such as cultural, public education or tradition. Furthermore, the analysis of objects has a few key principles. The nature of the objects consists of the meaning the person attaches to an object. The meaning of the object is not central, but rather how human beings interact with the object. Mead explains that an object is anything that can be referred to or named (Blumer, 1986: 68). For example, a chair, building, ghost, star, animal etc. Therefore, all objects are social products and are developed and transferred through social interaction. Human beings act on the basis of their own meaning of the object. Human beings do not have to respond immediately to an object and form meaning, but rather they have time to think, respond and plan their reaction to the object, how they view the object, to make decisions based on the situation, and whether to act or respond towards the object (Blumer, 1986: 68-69). Blumer (1986: 69) argues that “an object is different from a stimulus as ordinarily conceived”. Human beings are seen as living in a world or environment of meaningful objects. Different groups can develop different worlds and these worlds can

change and impact on the meaning of the objects. Therefore, a human's world consists of objects that have meaning, and cause them to act based on this meaning. It is reasonable to assume that the understanding of the behaviour or actions of people is necessary to understand and identify their world of objects. Symbolic interactionism, according to Blumer (1986: 12), is the process in which human beings create, affirm and transform objects.

3.2.3. Meaning

Symbolic interactionism constitutes three basic principles. The first principle is that human beings act towards things that have meaning for them. Secondly, the meaning of things is derived and formed because of social interaction with other human beings and, lastly, meaning is handled and modified through a process of interpretation of how an individual deals with a situation. Meaning, according to Blumer (1986: 2), is taken for granted and is key to human behaviour and human interaction. Meaning emerges from the object and no process is involved except to recognise the meaning of the object (Blumer 1986: 4). Some symbolic interactionists rely on social factors, social positions, social roles, statuses, cultural norms and values, social pressures and group affiliations to provide explanations. For symbolic interactionists, the meaning of things for human beings is important. Furthermore, symbolic interactionism views meaning as having different sources, not from the intrinsic makeup of objects, nor meaning derived from psychological elements in a person, but rather from the process of interaction between human beings (Blumer, 1986: 4). Symbolic interactionism views meaning as a social product which emerges through the defining the activities of individuals during interaction.

According to Blumer (1986: 3- 4), there are two ways to account for the origin of meaning. One is "to regard meaning as being intrinsic to the thing that has it". It can therefore be understood that a table can be seen as a table, a cat as a cat, and a star as a star, because their meanings come from their descriptions. Human beings create meaning by observing an object that has meaning for them and meaning as "physical accretion brought to the thing by the person" that has meaning for them. The psychical accretion symbolises the elements of the individual's mind, psyche, or psychological environment (Blumer, 1986: 4). The meaning is expressed through constituent elements of the individual's mentality such as "sensations, ideas, feelings, ideas, memories, motives and attitudes". Blumer (1986: 5) believes that humans derive meaning through interpretation. This process of interpretation requires an individual to communicate with him/herself. Whenever humans communicate with themselves, they create meaning towards the object. However, meaning through interpretation is viewed as a process

of self-interaction. Self-interaction occurs when an individual interacts with an object to create meaning. Therefore, the social process is internalised by the individual as they interact with objects and the self to create meaning (Blumer, 1986: 5).

3.2.4. Role-taking

Social life can only continue if members of the community separate the meaning from the interpretation of symbols. Stryker (1980: 57) states that symbolic interactionism makes use of “position”, which generally refers to any social positions of the actors. Positions are symbols for actors in the society, e.g. a teacher, nurse, social worker, politician etc. This gives a positional status to the person and leads to expected behaviours from that actor and the expected behaviour towards other actors. Therefore, the concept of “role” is regarded as the expectations attached to the position of the actor. Role-taking, according to Mead (1934), can be described as a process that involves an individual putting themselves in the situation of another person and picturing him/herself in that position, or interacting towards him/herself in that situation (Blumer, 1986: 13). Blumer explains that individuals take on different roles and therefore are in a position of convergence with themselves. This convergence is influenced by the ‘significant others’ in an individual’s life. Stryker (1980: 37) argues that the “self” happens through the same social process. The self is developed through social interaction, social structure and social experiences. Reflexively, the viewing of the activities exists of oneself through the self and therefore it is made possible by activities such as language and significant symbols. Language enables the use of the viewpoints of others to see oneself as an object. Stryker (1980: 37) further explains that adopting the viewpoint of others could be defined as “role-taking”, i.e. a “process through which the self is built”. The term ‘roles’ is defined because the expectations of others are significant to the structure of the self (Stryker, 1980: 62).

3.2.4.1. Significant others

Roles, according to Stryker (1980: 58), are social and similar to symbolic behaviour which is also social. For example, Stryker (1980: 58) notes that: “There can be no employer without employee or mother without a child”. Charon (2001: 76) describes significant others as those who play essential roles in an individual’s life, such as teachers, mothers and fathers. In the case of schoolgirls, these people are role models, who have a significant impact on the schoolgirl's behaviour and pattern of conduct regarding menstruation. The girls internalise this behaviour. Educators react to the actions of schoolgirls and first interpret what these actions

mean for themselves (Blumer, 1986: 79). The reaction of the educators develops the "meaning attached to such actions which are, in turn, mediated by the symbolic environment" (Solomon, 1983: 310). Blumer (1986) focuses on how people interpret actions with a strong emphasis on meaning. According to Solomon (1983), a symbol may be considered a "stimulus with learned meaning and value" and the interaction, reaction and interpretation of the actors towards the symbol, which, in this study, is menstruation.

Dewey (1930) argues that individuals start an activity that they can associate with in the environment (school) (Stryker, 1980: 24). Therefore, the individual does not respond to the existing section of the external "stimuli" from the activity. The activity can be described as an impulse, and humans pursue an impulse by changing their behaviour to the object in the environment accordingly. These objects develop into a stimulus by behaving according to the action in a situation in the environment. The stimulus thus develops meaning when the activity occurs. For example, a schoolgirl, with the onset of menstruation, could experience negative emotions, such as anxiety, shame, or embarrassment because menstruation, according to her mother, is a taboo topic in their society (Stryker, 1980: 36). During the child's development, knowledge and life skills are usually learnt from parents, family, neighbours and teachers. Educators, both male and female, could interpret the behaviour and lack of concentration of menstruating schoolgirls negatively and reprimand the girl, instead of showing empathy. Teachers themselves could lack accurate knowledge of menstruation because incorrect or insufficient information was passed down from their own mothers and grandmothers.

3.2.4.2. Generalised others

Blumer (1986: 82) describes the 'generalised other', first introduced by Mead, (1934) as the process where actors try to imagine what is expected of themselves and then take on the perspective of the 'other'. Charon (2001: 77) states that the generalised other involves an individual actor internalising societal norms and values regarding objects. Interaction with others then brings the individual directly into contact with the rules and perspectives of society. Manis and Meltzer (1978: 16) further confirms that whatever happens to actors in a given situation with others, they will use this information to influence future behaviours. The generalised other will therefore influence the experiences of individuals who are experiencing menstruation. The social action is internalised and the individual boy or girl who experiences body changes assumes that others of the same gender have the same experiences, thoughts and

actions toward body changes within that society. When an individual actor takes on what is expected, they take on the behaviour of the generalised other.

Shott (1976) looks at emotion as part of symbolic interactionism and links the experiences and expressions of emotion to socialisation. She emphasises the importance of the constructed behaviour of the 'actor' or, in this case, the girls' behaviour. The menstruating girls are socially constructed based on interactions with their peers, teachers and parents. Shott (1976) links emotion to shame and social experiences and believes that these form an essential part of social interaction. Emotions are moulded by culture and people's ability to react to a situation and to make sense of their feelings (Field et al., 2006: 156). For example, in most African contexts, the discussion of menstruation as a topic is seldom done publicly, preventing adequate support to women and girls during menstruation (Ramathuba, 2015). Girls' experiences of menstruation are influenced by the situations they find themselves in, as well as the cultural meaning ascribed to the experience.

Blumer (1986:6) notes that different situations influence individual experiences. This highlights the fact that different schools (public and private) are socially hierarchically different and will, therefore, influence interactions of schoolgirls, teachers and other staff members with menstruation differently. Individuals exist in different societies. Social perspectives involve concepts, ideas, social structures, social actions, power relations and cultures; these affect the mindset of individual actors with regards to menstruation. Culture influences these mindsets because it promotes varied customs, traditions, norms, values, rules and language around issues such as menstruation and influences interaction between actors, thus determining relationships and interaction between them (Charon, 2001: 179). Culture, according to Stryker (1980: 56), can be viewed as one of the main symbols in an interactive situation and allows initial behaviour appropriate to a situation. Culture, therefore, becomes a principal social object for the individual point of view and the utilisation of societal norms to control the self (Charon, 2001: 180).

3.2.5. Self-concept

Stryker (1980: 59) explains Mead's definition of the self as an object to itself and proposes that an individual can at times see him/herself as an object. However, the view of others during the interaction, and the unconscious activity of the self, could have consequences for the individual's behaviour. The roles he/she adopts, indicate the types of relationships with other

actors and the self. Therefore, the self can be described as the relationship towards other actors within a social process (Stryker, 1980: 59). Gender identity is shaped by an individual's place within the social structure of that society and membership within these social groups is often influenced by this hierarchy, i.e. class, race and culture. Mead (1934) indicates that individuals have many selves, for example, a woman can be a wife, friend, mother, child etc. (Stryker, 1980: 59). Identity is constructed in a naturally occurring social situation which refers to the 'me' of Mead's (1934) description of the social self. Mead (1934) differentiates between the 'I' and the 'me' as actors in the process of symbolic interaction. The 'I' represents the individual internal dialogue of the actor and occurs within, whereas the 'me' is the social self that interprets meaning based on society's expectations of the social self (Stryker, 1980: 38). Howard and Hollander (1997: 94) further note that the existence of the social self's most crucial requirement for symbolic interaction is shared information and activities, which influence the 'I'. Thus, the self and identity and the construction within social situations are pivotal to symbolic interactionism.

Charon (2001: 93) posits that the actor consists of both 'I' and 'me'. The 'I', according to Mead, and 'me' develop together from the social process and form a personality. The 'I' represents the internal attitude of an individual that is not influenced by the attitude of other individuals (Stryker, 1980: 38). The 'I' is explained as a free actor who is not influenced by social interaction, whereas the 'me' develops into a socially shaped and controlled actor (Charon, 2001: 93). Elliot (2007:34) believes that the 'me' plays a vital role in the evolution of societal structures. Manis and Meltzer (1978: 194) explain that Mead (1934) argues that the 'I' consists of essential natural elements, such as a schoolgirl's experience of menstruation (a normal physiological function of the body) at school for the first time as well as girls who are already menstruating. Here the expectation of society within this situation influences the 'me' girl's social experience. If there is an unavailability of sanitary products or she experiences soiled school clothes and inadequate sanitation facilities, her social self 'me' will be affected, which will affect her internal dialogue 'I' within. The 'me' represents social control as a section of the self and is needed when an incident has taken place. According to Mead, the self continuously responds through the 'I' and 'me' dialectic that builds the self. For example, the "I" as a subject develops meaning through interaction with others in a situation but is unconscious of the meaning when the action occurs. The subject "I", through the process of socialisation of the self, becomes the "me" as the object of observation (Dodds et al., 1997: 490-491). This refers to the negative emotions that schoolgirls develop with the onset of their

monthly menstruation at school or in public spaces. Their fear, anxiety and shame could increase if they experience soiled school uniforms, a lack of sanitary towels and negative behaviour of other actors towards them.

Elliot (2007: 33) highlights that Mead believes that the "me" is the socialisation of the self and consists of the internalised attitudes of others experienced in early childhood development. Blumer (1986: 68) argues that according to Mead (1934), "objects consist of whatever people indicate and refer to". In this study, an object can be anything a schoolgirl indicates or is concerned about with regards to menstruation. The schoolgirl can refer to menstruation and hygiene management as an object. The "me" symbolises the automatic reaction and interpretation of the "I".

3.2.6. Looking glass self-perspective

According to Manis and Meltzer (1978: 169), interactionists developed the notion of "looking-glass self", which forms part of the self-concept. Cooley (1926), according to Stryker (1980: 29), agrees that the self is viewed as a social product that is shaped and defined by social interaction. He assumes that the self is not separate from social life or social comments from other individuals and therefore views of the self are formed during the development of early childhood. The self-concept is formed in terms of how others see and respond to human beings as individuals (Shrauger & Schoeneman, 1979: 550). Cooley has three principles of the self: the imagination of others with the individual's appearance; the vision of their perception of that appearance; and some self-feeling, such as self-respect or embarrassment (Manis & Meltzer, 1978: 169). Therefore, the behaviour and characters of other individuals' views influence the individual's feelings. A schoolgirl might feel anxious when she starts to menstruate during school hours and might imagine what others will think when her school clothes are soiled with blood. Individuals generally come to their own conclusions, about what others believe (Manis & Meltzer, 1978:169). The self-feeling of the looking-glass self-concept develops during childhood. A child copies the visible actions of parents because the child feels that he or she as a child has some control. Menstruating schoolgirls are generally very secretive when they are menstruating because menstruation is not openly discussed in the home or within the family.

Goffman (1968) focussed on the importance of symbolically defined roles and the way characters are moulded in society (Elliott, 2007: 38). Goffman presents the notion that the individual is similar to an actor on stage. According to Elliott, 2007: 37), Goffman's (1968)

self includes the perception of different roles that are played in different social situations. One of the main ideas of Goffman's suggestion of "impression management" is that, through interaction with other individuals, an impression of the individual self is presented to others in a particular situation (Elliott, 2007: 40). Furthermore, Goffman argues that individuals in social situations manipulate their opinions to cope with other's impressions (Elliot, 2007: 99). A schoolgirl's behaviour might change if she starts her menstruation in a classroom. The particular reaction this girl will choose will be based on her interpretation of the situation at the time. Her fear of others' opinions of her could force her to resume a background role to avoid drawing attention to herself. When a schoolgirl takes on the role of a menstruating girl, her identity is referred to as social identity (Burns, 1992: 275).

Social status can be described as a social interaction that forms sustains and changes identities (Charon, 2001: 160). Identity refers to who individuals are, and the development is ongoing. Culture and tradition created by society can create negative experiences for menstruating girls and women and this includes hygiene management. Stryker (1980: 60) discusses Stone's term of identity and defines it as an individual who experiences being "placed as a social object by others". The study by Lahme et al. (2015: 2), according to Sommer (2016), on menstruation and social pressure in Tanzanian schools, reports that girls, starting their reproductive life, experienced social pressure to the extent that they were forced into early marriage and had to terminate their schooling.

3.2.7. Role identity

According to Howard and Hollander (1997:94), Stryker (1980) shows that role identities are based on connecting to other people; these identities then influence behavioural choices. Mead believes that the individual has a "self" or picture of themselves, that develops and changes through interactions with other people in society. Mead further argues that individuals develop the self-concept by taking on the role of the other. It is the view of symbolic interactionist scholars that an actor's action is an object of the self (Charon, 2001: 72). Schoolgirls' interactions are interpreted through the use of symbols, or through learning the meaning of menstruation through interactions with teachers, boys and parents (Blumer, 1986: 79). Schoolgirls (actors) give meaning to menstrual health management (object) and interpret their activities accordingly and then change the meaning according to their environment, for example, at school or within the home environment. Schoolgirls may feel guilty, embarrassed

or ashamed and therefore have internal conversations that will influence their behaviour. They adjust internally and choose their reactions, depending on the context.

Mead views the ability of schoolgirls to act towards themselves on an individual level as an actor. A menstruating schoolgirl communicates with herself when observing the school environment in which she finds herself to direct her action according to her observation. The schoolgirl reacts and re-creates meaning when she experiences unusual situations when menstruating, such as menstrual hygiene management at school (Blumer, 1986: 80). Hochschild (1979) argues that the meaning and interpretation of the schoolgirl's feelings towards menstruation creates a response to this situation when she interacts with herself (Fields et al. 2006: 156). The menstruating schoolgirl could feel isolated because menstruation is stigmatised within her society and her school environment. Menstruation is viewed as a stigma but is made more secretive because girls try to conceal the fact that they are menstruating (Johnston-Robledo & Chrisler, 2011: 3).

Blumer's symbolic interactionist theory concentrates on the processes that actors use to continuously create and recreate experiences from one interaction to another (Carter & Fuller, 2015: 2). Every person within their own context (rural, state or private schools) will interpret their experiences differently because of the value and meaning of menstruation and hygiene management within their context. This individual interpretation of the actors (girls) to menstrual hygiene management (object) could create fear and embarrassment and lead to actions based on their subjective meaning. The individual girl's subjective experiences can overrule the objective rules and norms of society concerning menstrual hygiene management practice. The girls give meaning to menstrual hygiene management (object) and act on this meaning accordingly. Blumer (1986) states that girls, as actors, could experience internal dialogue within themselves, which enables them to determine the meaning, especially in situations beyond their control. A girl from a private school environment could find that the facilities, to which she is accustomed, are inadequate in rural areas. She would need to assess the situation and act, accordingly, based on her subjective meaning of menstruation and hygiene management. Blumer (1986: 55-57) determines that the actor gives objects meaning, and that this meaning is a social product.

3.2.8. Social product

Blumer (1986) states that the meaning of something is a 'social product', which indicates that a social product is not inherent but, instead, can change according to social interactions. An example of this is that the meaning of menstruation and, therefore, menstrual hygiene management is a social product that may not be common knowledge but can be amended based on a schoolgirl's specific situation. Charon (2001: 28) believes that situations are defined by experience. Therefore, girls define the situation of menstruation as an experience within their social interaction and real situations, which in turn informs their experience. At public and rural schools, water, sanitation and waste disposal management may differ at each school and could form a norm for these children, within each context. The education of schoolgirls should be experienced positively with the onset of menstruation and not have negative effects during the girls' transition to adulthood within a school environment.

3.2.8.1. The social self

The social self is based on the perspective that the self emerges from social interactions such as observing and interacting with others, reproducing others' opinions about oneself and responding to others' opinions as well as internalising external responses and internal feelings about oneself (Blumer 1986: 62). There are many facets to the social self, such as the self-concept and self-esteem, as well as the complexity of the self and self-interests, with regards to identity and marginality that all relate to the self. A schoolgirl has an image of what kind of person she is when she is menstruating and acts in agreement with how she sees herself during menstruation (Blumer, 1986: 62). Solomon (1983: 320) explains that "the consensus of modern symbolic interaction centres on the social nature of the self and its importance for the individual's interaction pattern". Schoolgirls could develop low self-esteem due to this interaction and come to believe that menstruation is embarrassing and, therefore, that they should stay at home when menstruating. Girls and boys experience their physical development during adolescence differently. For some boys, physical development can involve changes to their voice and increased muscle tone, which creates a positive experience of masculinity. However, a girl's experience of physical changes, such as fuller hips, enlarged breasts and the onset of menstruation, may produce negative feelings and lower self-confidence. Rock (1979: 146) argues that the self without others is impossible.

According to Blumer (1986: 79), language is a special type of symbol within symbolic interactionism. It allows actors to create meaning and interpret their social interaction by using

language. Communication is a collection of words used to communicate and represents spoken and written words, that are based on other symbols. Acts and objects only have meaning to others because they can be described using words (Charon, 2001: 51). Meaning includes knowledge of what symbols represent, and thorough explanation that involves words. According to Hertzler (1965, in Charon 2001: 51), "the key and basic symbolism of individuals is language" and language is used to interpret these symbols. Words explain social objects, such as menstruation and hygiene management, and for the purpose of this research, schoolgirls (actors) understand menstruation (action) as a result of interaction with self and others. Language, utilised by schoolgirls to refer to menstruation and hygiene management as an object of menstruation, is sometimes regarded as a taboo subject (Charon, 2001: 52). For example, menstruation in certain societies is still believed to be a secretive topic. Sociocultural beliefs could affect the communication and support on reproductive health issues for girls in society.

3.2.9. Stigma

Charon (2001:193) describes Goffman's concept of stigma as a situation in which an actor does not feel qualified to be accepted socially. A culture of victimisation has encouraged people to accept labels that are stigmatising in some societies. Goffman sees stigma as a process by which the reaction of other actors tarnishes the actor's authentic identity. Charon (2001: 193) describes Goffman's term social 'stigma' as an attribute behaviour or reputation that is socially not accepted by society. Therefore, Goffman views stigma as a social construction and a process that affects identity (Kleiman, 2009: 1). In the concept of stigma, Goffman includes psychological and social factors that impact on the stigma of an individual. Kleinman et al. (2009: 2) confirm that in order to understand stigma, social processes need to happen within a socio-cultural environment that influence the individual.

The actor becomes affected mentally by other actors and sees him/herself as undesirable and a rejected individual, instead of being accepted as an average person. Menstruating schoolgirls often prefer the company of their friends, who are in a similar situation, over the uncomfortable company of other actors, such as boys and teachers (Shah et al., 2019: 13). A young schoolgirl might experience stigma and receive an adverse reaction from her peers. In some societies, menstruation is still regarded as a stigma, and is viewed as a taboo and secretive topic. This type of attitude and behaviour in society can have a negative effect on a menstruating schoolgirl. A menstruating schoolgirl, who sees herself as a member of a stigmatised group, whether it is evident to other actors around her or not, might experience psychological distress

and stigmatisation. This type of behaviour can affect a girl's self-esteem and academic achievement (Charon, 2001: 103).

3.2.10. Labelling

Prus (1972: 2) describes “The term ‘labelling’ could then be reserved for a more specific phenomena; referring to the process by which persons (or groups) come to be named”. According to Rock (1974: 42), Becker (1963) argues that treating a person as though they are deviant results in a self-fulfilling prophecy and naming because labelling isolates an individual from normal daily social activities. The labelling process is determined by how individuals view themselves, based on the assumption and opinions of others. Labelling can be explained as the process whereby somebody categorises another person as a certain type of person and applies the label to them. How 'others' act toward an individual is essential for his/her self-identity and behaviour (Charon, 2001: 160). Saydjari et al. (2015:1) note that:

The labelling theory perspective is based on how individuals define themselves and how they view themselves based on others’ opinions and perceptions. Through social interactions the individual determines the norms and values of society and those who do not conform often become labelled different, deviant, and delinquent.

Interactionists argue that social norms are watched, as are the responses of others, which then influence the identity of the individual. If the individual exhibits abnormal or "deviant" behaviour, then that specific behaviour is labelled within the society. Deviant behaviour relating to the menstrual cycles of girls and women can affect the self-identity of the individual (Charon, 2001: 161).

Individuals label others based on what they say or do, how they dress or what they hear about them. The actor interprets the actions based on these labels. However, the actors can change their interpretation based on experiences. The actors’ actions are viewed as social objects to be interpreted, leading to defined labels and renewed labelling of the menstruating schoolgirls. Sommer et al. (2015) report that experiences of shame, fear and confusion by menstruating schoolgirls, due to the label of deviance and shaming, causes challenges in most countries.

Becker (1963) argues that the labelling perspective views deviance as an interactive process between those who commit deviant acts and those who are assumed to have committed the abnormal behaviour. This abnormal behaviour includes those who define specific actions as deviant and label them as such, as well as those considered right and proper (Rock 1974:42). Furthermore, Rock (1974) discusses how Becker's (1963) concept of label puts the actor (in this case, the menstruating young girls) in a place in which it is harder to function. According to Nofziger (2001: 86), there are three forms of bullying: verbal, emotional and physical, with the most common form being verbal. Bullying is when an individual focuses on the vulnerability of the victim and creates a feeling of isolation and exposure to others (Nofziger, 2001: 86). An example would be of boys teasing menstruating girls. This is a form of verbal and emotional bullying, which could result in the girl staying at home or isolating herself from her peers when she is menstruating. This could further result in the girl being labelled as lazy by the class teacher.

The labelling concept includes issues of race, socioeconomic status, gender, religion and class. The symbolic interactionist scholars recognise that the utilisation of labels and the consequences of a labelling situation can affect the menstruating girl's characteristics as well as sociocultural behaviours. Symbolic interactionists suggest that negative labels could have negative consequences for disadvantaged groups in society, rendering them as 'more at risk'. The middle class and bourgeois population have more resources than the working class and the poor. They are in a better position to take action and adjust to the adverse effects of labelling than the working class and more impoverished communities. Stryker (1980: 77) notes that for a father it may be more important to feed his family than to buy sanitary products for his daughter. The provision and availability of safe and adequate disposable sanitary products at public schools, compared to the provision of sanitary products at private schools, is different. Menstrual hygiene management is linked to socioeconomic status (Zara, 2015: 3).

3.2.11. Self-fulfilling prophecy

Self-fulfilling prophecy is explained as the immediate acceptance of a label by an individual. The individual tends to view themselves according to the label and act in a way that is consistent with that label (Charon, 2001: 161). Educators tend to label learners and make predictions about their future successes and failures and, therefore, the prophecy the educator makes could be realised (Charon, 2001:161). If a schoolgirl is absent regularly due to menstruation as a result of inadequate sanitation, water, infrastructure and lack of privacy, then

the self-fulfilling prophecy of failure is a possibility. An example is when an educator appears to be irritated when a menstruating girl asks to go to the toilet to change her sanitary towel. The teacher could label the girl as disruptive and inconsiderate for not waiting for him or her to finish the lesson. A schoolgirl's experience of menstruation within the school environment could affect her education as well as her psyche. For example, a male teacher could period shame a menstruating schoolgirl, who has soiled her uniform, without thinking of the consequences.

3.2.12. Joint action

Blumer (1986: 70) prefers to use the term "joint action" because it refers to a "larger collection of action". Joint action can be explained as a trading contract between two people that brings individuals together towards a common goal or represents a huge organisation or institution (Johnson 2013 citing Blumer 1986: 70). Examples of joint action are family life, games, sport and marriage. Each individual has different roles within the joint action and common behaviour/conduct cannot determine the joint action but only the social action together. The individual identifies the social act in which they are about to take part by interpreting and defining each other's social act and then forming the joint action. According to Blumer (1986: 71), the principle of the society can be viewed as an ongoing process of action and not a presumed structure of relations. Without action, the structure of an individual relationship has no meaning. Joint action is not the separate actions of an individual, collectiveness or institution but separate actions that can fit into and combine the actions. Action is described in terms of joint action, not a separate individual action that does not fit and merge. Each joint action has a history/career that is ordered, fixed and repetitive. The reason for this is common identification and definitions of the joint action, formed by the participants.

Blumer (1986: 70) defines collective action as the phenomenon where people act individually and together as a group collectively. "Joint action" can be interpreted as a group of individuals and their activities that matter to each other. Mead recognises that joint action is an essential unit of society because it analyses and exposes the nature of society (Blumer, 1986: 70). The collective effort of schoolgirls, teachers and other female staff members give meaning and interpretation to problems such as inadequate menstrual hygiene facilities at schools. Joint action could assist with the improvement of the menstrual hygiene management. The communication between individuals and societies is linked to symbolic interaction because of the meaning that boys and girls give to the subject of menstruation. The way they interpret and

react in society can provide evidence of a lack of knowledge and myths surrounding menstruation. Social roles, therefore, influence an individual and groups within the community and their reaction to issues such as menstruation and hygiene management.

3.2.13. Social roles

Blumer's (1986) symbolic interactionism suggests the idea that social organisation is the framework in which actors form their actions. The study of Kaur et al. (2018:2) reports that because of cultural norms and restrictions, many menstruating girls are not adequately informed about menstruation and hygiene management. This results in girls feeling abnormal, sick and/or being traumatised by the experience. The uninformed girl could develop negative attitudes, behaviour and emotions towards menstruation. Girls learn the meaning of social roles and actions from their mothers through interaction, and mothers transfer their knowledge and interpretation of menstruation to their daughters. The girls, therefore, identify with prescribed social roles through socialisation. According to symbolic interaction, the behaviour of the individual is managed by internal actions by interpreting the world around them by people, to give meaning to themselves (Blumer, 1986: 62).

Gender inequality often results in education systems neglecting to educate boys and girls equally about menstrual hygiene management. Gender is a socially constructed entity that impacts sex and menstrual education within families and school environments. Gender acknowledges the many roles performed by women and men throughout their life cycle (Howard & Hollander, 1997: 12). Women may have various identities, such as mother, wife, social worker, counsellor, breadwinner etc. (Stryker, 1980: 60).

Blumer (1986: 85) describes Mead's concept of human society as the involvement of acting people and the social life as their actions. The acting units may be separate individuals, groups of people acting together for common purpose, or an organisation acting on behalf of a society. In society, action is viewed in terms of the acting unit that has emerged. The primary condition, according to Mead, is that the acting unit take place in response to the situation (Blumer 1986: 85). Therefore, the acting unit could be a church, school, university or labour union and any action that emerges according to the situation at hand. The second condition is that acting emerges, or is constructed, according to the interpretation of a situation. The acting unit has to identify the things they consider necessary in order to make a decision or an assessment. The

things the acting unit has to consider are “tasks, obstacles, means, demands, discomforts, dangers” (Blumer, 1986: 85).

The interpretive behaviour, such as the demands or discomforts of the actor, may take place when guided by his or her actions individually, or collectively acting as a group, or acting on behalf of an organisation as an “agent” (Blumer, 1986: 85). Group life consists of acting units forming acts in reaction to their situations. Most of the situations in which individuals find themselves within a society are defined or structured by them. Symbolic interactionism sees social organisation as “a framework inside of which acting units develop their action” (Blumer, 1986: 87). Blumer further explains that structural features, such as “culture, social systems, social stratification or social roles” set the context of their action but do not influence the actions. Unfortunately, people do not act towards culture or social systems but act towards the situation in which they are placed (Blumer, 1986: 88).

The Constitution of the Republic of South Africa (1996) emphasises the right to dignity, equality, freedom and primary education. This aspect is of particular importance to Makana, with its current non-availability of water due to poor infrastructure. Water and sanitation are essential issues to consider when assessing the school environment, and whether it offers women and girls the privacy, dignity and hygiene management necessary to manage their monthly menses. This reality is context-based and can be due to resources (adequate or insufficient) as well as the information received in class and the education of menstrual hygiene management.

3.3. Conclusion

In the context of this research, varying understandings of menstruation can potentially create fear and embarrassment and lead to negative actions (Sommer et al., 2016: 2). The symbolic interactionist theory of Mead and Blumer and other interactionist scholars, including Cooley, Goffman and Becker, has been covered to demonstrate the ways that this framework can be applied to this current research. Various factors contribute to or impact the negative experiences of girls and boys regarding menstruation. These have been discussed as relating to concepts of stigma, looking-glass self, labelling and self-fulfilling prophecy. This research explores the ways in which menstruation and hygiene management are approached in

schools, because the environment has a strong bearing on the meaning and interpretation of menstruation by school children, teachers and other role-players.

Chapter 4: Methodology

4.1. Introduction

The global recognition of menstruation and hygiene management as a public health topic influences and affects the education of schoolgirls in South Africa (Sommers, 2015: 1). The stigma and taboo surrounding menstruation mean that girls are ill-prepared for and have inadequate knowledge of the biological processes of their bodies. This chapter provides insights into how the management of menstruation hygiene among schoolgirls can be a barrier to equal education for both sexes. The focus of this research is menstrual hygiene management in schools and how educators and other role players can exacerbate the situation within the school environment. The qualitative research method provides a deeper understanding of menstruation and hygiene management within the school environment (Silverman, 2006: 56). This chapter will discuss relevant information gathered regarding menstrual hygiene management and includes data collection methods. The choice of informed informant strategic sampling of participants (Smith, 1975:117-118), population sampling and interview questions will inform the reader of the interview process and methods.

Leavy (2017: 129) explains that Mead (1934) and Blumer (1986) analysed how individuals and small groups utilised symbols, such as language, behaviour and actions, during interactions to communicate meaning. Blumer's view of symbolic interaction is understood as a social process in which participants construct their responses by continuously interpreting one another's actions and is therefore a useful research tool (Da Silva, 2007: 79). Mead focuses on the importance of the human capability to "take the role of the others", imagining how others feel and how they might behave in certain circumstances. As we gain an idea of how people, in general, see things, we develop a sense of what Mead calls the "generalised other" (Babbie, 2011, 37). The interpretive or constructionist paradigm looks at how people participate in the process of constructing and reconstructing meaning through everyday interactions (Leavy, 2017: 129).

The education environment in the Makana district consists of private and independent schools, semi-public schools and public schools. Exorbitant school fees provide the basis of funding for independent schools. These schools were able to provide the required resources for menstruating schoolgirls, including an enabling environment, bathroom facilities, waste

disposal containers, a sanatorium and a nurse(s), and the provision and availability of sanitary products. The semi-public schools were the so-called former Model C schools, which rely on funding from the government and school fees which are governed by a school governing body. The public schools were completely dependent on government funding and learners are exempted for paying school fees.

4.1.1. Goals of the research

The primary objective of this study was to explore the meaning and interpretation of menstrual hygiene management by educators and other role players in schools in the Makana district. The objective includes an assessment of the infrastructure available such as water, sanitation and other facilities at the schools. The secondary objective was to gain an understanding of educators' attitudes towards gender equality and menstruation. Furthermore, the study aimed to explore how educators interpreted and transferred their knowledge of menstruation to boys and girls. Therefore, it was necessary to investigate the availability of support structures such as water, sanitation, waste disposal facilities and sick bays to educators and other actors.

4.2. Qualitative method

One of the qualitative research goals was to provide an in-depth and interpretive meaning of the social world of the research participants by gaining an understanding of their social reality and experiences regarding menstruation and hygiene management (Ritchie & Lewis, 2003: 3). The research took the form of a qualitative approach, which was a systematic approach used to describe and detail understanding of life experiences, human behaviour and attitudes, and gave them meaning (Braun & Clark, 2013: 20). The study included insights into challenges present at schools around menstruation and hygiene management. It also sought to develop a narrative about issues regarding menstruation and hygiene management and tried to understand the reasons for the current school environment (Babbie, 2010: 24). Garfinkel (1967) viewed people as continually creating social structures through their actions and interactions and therefore creating their realities. The qualitative research studies human actions from an insider's perspective, and the goal of the researcher was to define, describe and understand the actions of the social actors, such as teachers and health-related staff. Qualitative research did not provide fixed and rigid procedures, but instead provided the researcher with strategies to organise the research, collect, analyse, and interpret the data (Babbie, 2010: 24). Qualitative research in this study provided insights into the problems or issues around menstruation and hygiene management at the schools. The qualitative method also sought to build a narrative

regarding the issues or problems involving menstruation and hygiene management and provided meaning for the current situation. The purpose of qualitative research was descriptive and sought to interpret menstruation and hygiene management at the schools systematically from the participants' viewpoints and to develop new meaning and interpretation of menstruation and hygiene management (Mohajan, 2018: 24). Qualitative research sought to develop new meaning and interpretation regarding menstruation and hygiene management at schools (Nicholls, 2009: 592). Qualitative research was descriptive as it also provided a means to examine variables in their natural and non-manipulative settings (Babbie & Mouton, 2001: 270). The research study was conducted at six public and two private schools in the Makana district. The participants were teachers and not schoolgirls.

In summary, qualitative research is an in-depth study using tools, including observation and unstructured interviews, without any assumptions or hypothesis. The aim was to obtain descriptive or non-quantifiable data on menstruation and hygiene management at schools without attempting to generalise the situation at other schools. The qualitative method was suitable because the goal of the research was to explore the meaning and interpretation of menstruation and hygiene management by educators and other actors at a particular school.

4.3. Data collection

4.3.1 Interview method

The type of exploratory research in this study involved in-depth interviews, in the form of an interaction between the researcher and staff members at the participating schools. In-depth interviews can take the form of intensive interviews, unstructured conversational interviews, ethnographic interviews (where the researcher observes and interacts with the participants in the school environment) and focused interviews (Babbie, 2010: 311-320). The in-depth interview is a personal and informal interview, the goal of which is to recognise the emotions, feelings and viewpoints of teachers and other actors regarding menstruation and hygiene management. The informal interview is unstructured and casual and not structured like a job interview. The advantage of the personal interview is that the interviewer and participants are involved in individual and direct contact which creates flexibility in the flow of the conversation. However, the aim of the researcher in this instance was to acquire a general overview of menstruation and hygiene management, rather than to generate statistical data for the broader population. During the interviews, information regarding the social world was

obtained from teachers and other actors because the interviewer and the topic of menstrual hygiene management allowed both interaction and constructed narrative interpretation of the social world of the participants (Silverman, 1997: 99).

In this research, therefore, the in-depth interview can be described as an interaction between the researcher and the teacher at the public and private schools, in which the researcher explored menstrual hygiene management at schools. This was achieved by posing questions, not in a fixed chronological format but according to topics relating to menstruation and hygiene management at schools. The study used semi-structured interviews that involved the development of a broad set of questions for all participants. The researcher developed semi-structured questions that were utilised as a research guide. The preparation of the questions guided the researcher in achieving the objectives of the research study. The researcher could change the questions according to the demands of the situation (Lichtman, 2014: 248). The interviewer asked open-ended or inductive questions and recorded the participants' responses. The primary goal of the in-depth interview was to gain detailed information and also to investigate the reasons behind the responses, opinions, motivations or emotions provided as well as the experiences relayed (Leavy, 2017: 139). Qualitative research is concerned with the more profound meaning and perspectives of the participants, and therefore, it is imperative to obtain sufficient data for later analysis (Braun & Clark, 2013: 51).

The interviews in this study were conducted at a venue that was accessible to participants (Ritchie & Lewis, 2003: 59), in a private room and at a convenient time for the participants. The interviews were conducted in a natural setting at the school and took no longer than 45 minutes each. Participants gave detailed responses to the questions asked. Consent forms were explained and signed by all participants. A digital recorder was used to record the interviews.

4.3.2 Recruitments of participants

Purposive sampling is an approach with specific features that allows exploration and understanding of menstrual hygiene management for the purposes of this study (Ritchie & Lewis, 2003:78). The schools were selected in order to gain a deeper understanding of menstrual hygiene management at a cross-section of schools in the Makana district (Neuman, 2006: 222). In qualitative research, the sampling is generally a small sample of the population that concentrates on quality instead of quantity and selects participants according to strategic informants sampling. In this study, participants who would provide the best information about

menstruation and hygiene management were selected (Smith, 1975: 117-118). The participants were selected according to their field of interest in reproductive health subjects such as Life Orientation and Life Skills. The strategic informants at the schools were the following:

- Three teachers from a public high school (a female principal and Head of Department (HOD), a female Life Orientation teacher, and a male Life Orientation teacher).
- Three teachers from a semi-public school (a male principal and two female Life Orientation teachers, one of whom is a Head of Department).
- Three teachers from a private high school (a female principal, a female Life Orientation teacher (HOD) and a male Life Orientation teacher).
- Three teachers from a private primary school (a male principal, a female Grade 6 teacher and a female Grade 7 teacher).
- Three teachers at a public primary school (a male principal, a female Grade 6 teacher and a male Grade 7 teacher).
- Three teachers in a semi-public school (a female principal, a female Grade 6 teacher and a male Grade 7 teacher); and
- Three teachers at a rural primary school (a male principal and two female teachers).

Qualitative researchers believe that every participant is different because information can be uncovered regarding each school's unique experience that did not rely on a particular participant's perspective. The research study was conducted at four primary schools and four secondary schools in the Makana district. Interview interaction was allowed and the researcher probed the participants and gathered information (Bernard, 2013: 182-185, 211).

Purposive sampling, according to Bernard (2013: 162), is a type of non-probability sampling. For this research, non-probability sampling was considered suitable for the in-depth study (Bernard, 2013: 162). The research topic, namely menstruation and hygiene management, was explained to the principals of the selected schools to obtain permission for the study. Informed consent forms were given to the principals to obtain permission to participate in the research study. Twelve secondary school educators, i.e. three from each secondary school, including the principal and two educators or/and staff members responsible for health care, where applicable, were interviewed. Twelve primary school educators, i.e. three from each primary school, including the principal and Grade 6 and 7 educators, were interviewed. The interviews were conducted in a natural setting, in a relaxed environment, as suggested by Babbie (2010: 311-

314). The interviews were recorded, using recording equipment, and the participants' permission was obtained (Lichtman, 2014: 253). The interviews were transcribed for data analysis, the respondents remained anonymous and links to their information were kept confidential. The anonymity of schools and educators has been maintained, as well as the confidentiality, for ethical purposes.

4.3.3 Interview questions

The design of the semi-structured interviews was to obtain data regarding menstrual hygiene management and open-ended questions were utilised, allowing for interpretation by and meaning for the educator about menstruation and hygiene management. This included the teachers' knowledge regarding menstruation, their attitudes towards menstruation, and what the support system offered for menstruation and hygiene management within the school environment. The questions were designed to capture and understand the teachers' experiences and their feelings regarding menstruation and hygiene management at the schools. The questions also explored the meaning and interpretation of menstruation and hygiene management within the school environments. See Appendix 1.

4.3.4. Role of the researcher

The critical aspect in the role of the researcher discussed Schwartz-Shea et al. (2012) is access to participants (Johnson 2013: 66). Exclusive to qualitative research is that the researcher acts as a research agent and remains as objective and unbiased as possible in the administration of data collection. The researcher should be aware of the issues of power imposed through the qualitative relationship. The issues of power could involve variables such as status, gender or age between the researcher and the participants (O'Reilly & Kiyimba, 2015: 47). The researcher, as the primary agent, functions as the interpretivist, and therefore seeks to find and understand how research participants perceive, feel and experience their social world. Interpretivism includes the ability to perceive the detailed meaning of the participant's behaviour and attitudes (O'Reilly & Kiyimba, 2015: 11-12). The researcher sought to build a rapport with the participants in order to collect quality data and motivated participants to be open and comfortable during the interview. Therefore, it was the researcher's role to create an environment where the participant felt safe and secure in order to communicate (O'Reilly & Kiyimba, 2015: 47). The closeness and building of the relationship with the participants required the researcher to have patience and not display emotional outbursts during the conducted interviews (O'Reilly & Kiyimba, 2015: 47. Schwartz-Shea and Yanow (2012: 97)

state that “(to) presume that humans cannot be aware of their “biases” is to reject human consciousness – the possibility of self-awareness and reflexivity – and the human capacity for learning” (Johnson, 2013: 66). This, therefore, creates an awareness of the possibility of bias. As a researcher, I strove to be impartial when conducting the interviews at the schools and tried not to influence the results and outcome of the study.

As an integration into the interview process, the researcher in this study set the agenda and directed the conversation during the interviews. In this manner, interviews not only provided for the collection of data but encouraged the interviewee to treat the topic as essential and allowed for the establishment of a trust relationship to gain the necessary information for data collection (Wagner et al., 2012: 134). The types of questions asked, and the trust relationship between interviewees and the researcher, instructed the outcome of the study (O'Reilly & Kiyimba, 2015: 80). The researcher conducted the interviews with the interviewee at a time that was suitable to the latter and reassured the interviewee that the interview would only last for 45 minutes to avoid fatigue and irritation.

4.3.5. Ethics

According to Wagner et al. (2012: 62), Ogletree and Kawulich (2012) state that ethics is a crucial issue at every stage of the research design and the implementation process. Hunter (2008, cited in O'Reilly & Kiyimba 2015: 44) indicates that the ethics protocol for the submission to an ethical committee is standardised at universities in South Africa. It is relatively new for universities, and it was imperative to use developed governance systems for reviewing ethical applications. The ethical guidelines become a critical factor in the risk of research ethics in social science research because participants are involved in studies (O'Reilly & Kiyimba, 2015: 45). The directing of ethical research begins with the community as the first contact during the study (Wagner et al., 2012: 64). The ethical review process gives an imperative framework for the assessment of the risk involved in research (O'Reilly & Kiyimba, 2015: 50).

For this study, ethics were conducted according to the policy guidelines on ethics by the Rhodes University Ethical Standards Committee (RUESC). The role of the ethics committee was to eliminate the risks attached to the research study. There is a link between research ethics and general areas such as "informed consent, anonymity and confidentiality, power, coercion and the responsibility and positionality" (O'Reilly & Kiyimba, 2015: 53). Informed consent is an

essential aspect of the research process, and it aims to empower the participants to make informed decisions and choices that promote their self-interest (Wagner et al., 2012: 68). An explanation of menstruation and hygiene management was undertaken, and informed consent forms were distributed to obtain permission and ensure that participants took part voluntarily.

It was explained to participants that they could terminate their voluntary participation at any time. O'Reilly & Kiyimba (2015: 54) refer to Tilley and Woodthorpe's (2011) explanation of anonymity as the deletion of identifying information of the informants and confidentiality is the management of private information. Anonymity entails that those taking part in the study will not be known externally beyond the research team. In this study, the names of the research participants were not mentioned in any report or presentation. According to Wagner (2012: 56), power, coercion and responsibility, including the researcher's professional background, could influence participants and may cause participants' reactions to differ, depending on their perception of the role of the researcher. The relationship between the researcher and participants is known as positionality. The researcher's beliefs about and knowledge of menstrual hygiene management should not interfere with the views of the participants in the study. The ethically reflective researcher will consider cultural context, language and cultural aspects of the research study, as referred to by O'Reilly & Kiyimba (2015: 57). Therefore, questions were formulated without offending the participants but to gain accurate information regarding menstrual hygiene management.

Allowing participants to exercise their right to withdraw from the research process at any time forms an integral part of giving informed consent (O'Reilly & Kiyimba, 2015: 54). In this study, there was minimal risk of embarrassment to the participants as the interviews were organised in such a way that any possible harm to the participants was unlikely. This also applied to the male teachers. The questioning was conducted in an extremely professional manner to avoid embarrassment, and only the teachers were interviewed and not the schoolgirls. The schools were labelled according to letters of the alphabet, for example school A etc., to protect the identity of the schools and participants and to ensure anonymity and confidentiality. The research participants were informed that no-one, other than the author of the study and possibly her research supervisor, would read the full transcriptions of the interviews. A copy of the thesis will be made available to each school, as well as recommendations arising from the research. The principals will be allowed to use their

discretion and submit a copy of the report to the Sarah Baartman District Office of the Eastern Cape Department of Education, should they so wish.

4.3.6. Data analysis

The focus of qualitative data is the interpretation of the 'raw' data. Berg (2001, cited in Wagner et al., 2012: 229) describes data analysis as a method of data reduction, presentation, reaching a conclusion and validating the information gathered. According to Sommer (2015:1), "menstrual hygiene management is recognised globally as a public health topic". The reason why menstrual hygiene management has become a recognised problem is related to the need for menstruation infrastructure and proper information that will enable female learners to successfully move through their primary and secondary education (Sommer, 2015: 1). Once the interview was recorded, the information from the digital recorder was transcribed by the researcher. Silverman (2000:149) explains that recorded information from an interview provides an accurate record of the participants' experiences. The general analysis of qualitative data entails categories and identified themes from the data (Wagner et al., 2012: 231). This study attempted to understand how the different participants experienced this phenomenon of menstruation at their respective schools (Wagner et al., 2012: 231). The transcriptions allowed for the reduction of texts and analysis of narratives, by identifying themes and coding the data into categories relating to menstrual hygiene management and linked the information obtained with goals of the study (Johnson, 2014: 69). The analysis is explained as the exploration of patterns in the data and understanding why these patterns are present (Bernard, 2013: 394). Analysis of the narrative writing reveals themes that relate to each other and other participants. The content of analysis refers to the researcher's ability to structure the gathered data in a way that it achieves the research objectives (Bernard, 2013: 393).

Coding is developed directly from the gathered data and defined as the "process of identifying aspects of the data that relates to the research question" (Braun & Clark, 2013: 2016). The coding process also allows for the generated data to be reduced and categorised (Leavy, 2017: 151). The thematic analysis looked across all data and identified common topics that reoccur, as well as predominant themes. The use of thematic analysis is to understand the data in different situations and according to themes (Wagner et al., 2012: 231). The critical steps of thematic data analysis are to read and write explanatory notes of transcripts and then identify themes and develop a coding system for coding the data (Braun & Clark, 2013: 206-207). The themes provide a meaningful and logical description of the patterns in the data that address the

research questions (Braun & Clark, 2013: 249). The goal was to answer the questions that guided the research study (Wagner et al., 2012: 231). However, the coding of the data collected allowed for a series of formal variables (Bernard, 2013: 527). The coding assisted with the identification of themes in the data after transcription. In this study, coding was done according to the themes of menstrual hygiene management. Notes provided a connection between the coding and interpretation of the data. The notes assisted with the documentation of ideas and assessments of transcribed understanding of the collected data (Leavy, 2017: 152).

A copy of the pre-design questionnaire for data collection can be found in Appendix 1. The questions were in English and an adequate explanation was provided to the participants to avoid any misunderstanding and to facilitate accurate responses. The research topic was menstruation and hygiene management and various other topics related to this research topic were covered in the questionnaire. The topics included the availability of facilities, support systems, teachers' experiences, knowledge on menstruation, constraints on resources, review of the Life Orientation curriculum, cultural myths, the relationship between the teacher and pupils and how teachers can contribute towards restoring the dignity of schoolgirls.

4.3.7. Validity and reliability

Validity is an essential element for qualitative practice and refers to the trustworthiness of the study and appropriate conclusions (Leavy, 2017: 154). O'Reilly & Kiyimba (2015: 31) explain that "reliability in qualitative work relates to the consistent production of a detailed and meaningful description of phenomena. Therefore, reliability includes performing a clean audit process, demonstrating that an account of the research study was achieved". The research report indicates how the findings were obtained (O'Reilly & Kiyimba, 2015: 31). The researcher's prior knowledge and experiences regarding menstruation and hygiene management influenced the researcher to a degree. This also includes the literature review and the influence of the real social world which involves language, social interaction, interpretation and meaning (Johnson, 2013: 69).

4.4. Conclusion

The methodology chapter has shown why the qualitative method was utilised for this research study through an interpretative approach. The interview method was the best way to collect quality data through conversation and purposive interaction, in which the researcher used questions to gain information about the ideas, experiences, beliefs, views, opinions and

behaviour of interviewees (Wagner et al., 2012: 133). This chapter further summarised the challenges that teachers struggled with at school regarding menstruation and hygiene management. O'Reilly & Kiyimba (2015: 11) explain that different aspects within interpretivism use human interpretation as the first point of gathering knowledge regarding the social world, according to Prasad (2000). The collection of data using the interpretive approach, such as interviews with teachers and other staff members, gave meaning by utilising symbolic interactionism.

Chapter 5: Data analysis - Software

5.1. Introduction

This study focuses on menstrual hygiene management at schools in the Makana district. The World Health Organisation (WHO) defines menstrual hygiene management as:

Women and adolescent girls being able to use a clean menstrual management material to absorb or collect menstrual blood that can be changed in privacy as often as necessary for the duration of a menstrual period. Menstrual hygiene management includes soap and water for washing the body as required, and access to facilities to dispose of the used menstrual material (Daniels, 2016: 5; Mahon et al., 2010: 100; Sommer et al., 2017: 74; and World Health Organisation and UNICEF 2012: 16, cited in Chin, 2014: 4).

Sommer et al. (2020:4) also recommend a more inclusive definition of menstrual hygiene management, noting that:

Women and adolescent girls are using a clean menstrual management material to absorb or collect menstrual blood, which can be changed in privacy as often as necessary for the duration of menstrual period, using soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials. They understand the basic facts linked to the menstrual cycle and how to manage it with dignity and without discomfort or fear.

The onset of menarche symbolises the journey of a girl from childhood to womanhood and should be undertaken with dignity and respect. Preparing young girls for menstruation is affected by culture, tradition and religion. To prepare for menstruation, girls should be educated about the physical changes that take place in their bodies, menstrual hygiene management and the psycho-social and emotional changes they will undergo. Menstrual health is an inclusive term comprising both menstrual hygiene and management. There are various other factors closely linked to menstrual hygiene management including gender inequality, education (e.g. absenteeism from school by girls due to menstruation), empowerment, and females' rights (Geertz et al., 2016: 2; Hennegan et al., 2017: 3; Joshi et al., 2015: 52). It is necessary to educate and transfer accurate information to school-going girls and boys so that they have an understanding of menstruation from Grade 3 onwards (Chandra-Mouli 2017:3; Dambhare,

2012; Hennegan: 2020: 639; Setyowati et al., 2019: 7; Sommer et al., 2016: 1; Sommer et al., 2019: 17).

5.1.1. Thematic data analysis

The data collected in this study yielded various themes which allowed for the understanding of the meaning and interpretation of menstrual hygiene management within the theoretical framework of symbolic interactionism. These themes have been divided into two components - *software* and *hardware* – and are discussed in detail in this analysis. Hennegan (2020: 639) and Yilmaz (2019: 2) argue that access to information and knowledge about menstruation and menstrual health is often cited as “*software intervention*”, which is defined as the provision of reproductive health education. For example, software could refer to when a girl is supposed to be informed about changes in her body but has not been provided with information about menstrual issues. The software components in this current study include the meaning and interpretation of menstrual hygiene management; the attitude of male educators towards menstruation; knowledge and understanding of menstruation; education of boys and girls about menstrual hygiene management; and challenges experienced by teachers in educating boys and girls about menstrual hygiene management. According to Hennegan (2020: 642), the *hardware* components focus on effective menstrual hygiene management and the provision of and access to sufficient clean, safe, and comfortable material for collecting menses. It also includes accessibility to and availability of private, safe sanitation facilities to change menstrual products and to wash with soap and water. Hardware components include the availability of facilities and resources; gender inequality; support systems and infrastructure at schools; state of infrastructure; accessibility and provision of sanitary products; and the disposal of sanitary products. Furthermore, it also includes government and institutional regulations, such as the South African Schools Act and the Constitution of South Africa and initiatives by schools to improve menstrual hygiene management. Each of these components are discussed below.

5.2. Software components

5.2.1. Meaning and interpretation of menstruation

The analysis begins at primary school level because girls generally experience the onset of menarche while in primary school. The majority of the primary school teachers in this study all viewed menstruation as having a stigma attached because of society’s view of menstruation as a taboo topic. The reasons for the stigmatisation of menstruation at primary school level are

the cultural diversity of learners at school, the sudden onset of menarche, and the age of the pupils. During menstruation, girls encounter social stigma globally and experience behaviour associated with negative cultural beliefs linked to menstruation (Benshaul-Tolonen, 2020:12; Chandra-Mouli et al., 2017: 1; Hales et al., 2018: 216; Seydou et al., 2020: 290). The beginning of menstruation signifies the start of adolescence for girls, which is a normal physiological process of the body and generally starts between the ages of nine and 12 years (Asha et al., 2019; Aswathy et al., 2019: 755; Hoyt et al., 2020: 1; Karki et al., 2019: 1). The World Health Organisation defines adolescence as “the period between 10-19 years of life” (Kransniqi et al., 2020: 214 and Mahumitha, 2019: 112). Menarche symbolises the start of a female's reproductive years and is an essential milestone in a girl's transition to womanhood (Aluko et al., 2020:2; Boosey et al., 2014: 2; Haque, 2014: 1; Setyowati et al., 2019: 7). However, Chothe (2014:7) reports that in India, there was an urgent need for schoolgirls to receive guidance on menstrual hygiene management. This would prepare girls for menarche and ensure that they would not feel anxious and fearful because of a lack of knowledge and information around menstrual hygiene management. In developing countries, more girls attend school currently than previous generations, and so more are likely to have their first menarche at school rather than at home (Haver et al. 2018: 2; Kulmann et al., 2017; Singh et al., 2019: 39). A girl should experience this journey from childhood to womanhood with the dignity, respect and humanity she deserves because this is a biological process. Crankshaw et al. (2020: 2) argue that the right to dignity and education cannot be compromised by the socioeconomic circumstances of being young, female and poor.

5.2.1.1. Stigma/taboo attached to menstruation

Applying Goffman's (1968) definition of stigma, menstruation is regarded as an “individual character blemish”. Menstruation could be considered a blemish because a girl's image, as a result of the leakage of menstrual blood and the soiling of her clothes, could have a negative impact on her. Johnston-Robledo and Chrisler (2013: 3) propose that during menstruation even dysmenorrhea (painful menstruation) and the use of alternative menstrual products are symbols that stigmatise females as being unclean, emotional and not in control of their bodies.

The onset of menarche is a crucial event in the lives of girls. It is challenging when the girl starts to menstruate before the age of 12 years because this could have physical, psychological and social implications for her. One primary school principal in this study explained that "...the biggest stigma is when their peers are not menstruating yet, girls as young as Grade 3 start

menstruating, and then their peers do not even know or (are) aware about any of that. Then those girls are more likely to be ashamed. If you are nine years old, you feel more ashamed." (Interview with author, 2020). Mohammed et al. (2020: 1) and Ndlovu et al. (2015: 4) report that, in their research, they found that girls as young as eight years had started to menstruate. Often these girls are unprepared for their first menstruation and enter puberty with a lack of information about menstrual hygiene management because of the taboos surrounding menstruation (Gultie et al., 2014: 2; Haver et al., 2018: 373). Another primary school principal in this study explained that she had to assist a Grade 3 girl with her first menstruation at school and indicated that the girl "stayed at home every time she menstruated. Being so young and sensitive, she struggles a lot. Emotionally they do struggle." The girl had not received premenstrual information from her parents because she was so young. She could not cope with managing her menstruation and therefore stayed at home during her monthly period. Accurate knowledge and information regarding menstruation could serve to improve learners' emotional responses and attitudes towards menstruation (Hales et al., 2018: 7; Tegegne et al., 2014: 2; Setyowati, 2019). According to one Grade 6 Life Skills teacher in this study, the South African syllabus in Grade 6 covers "...body image, self-esteem and the topic of puberty". This teacher indicated that the reactions of girls, when the topic of menstruation was covered in class, were mixed because some blushed and others were shy.

According to a study conducted in Eastern Cape schools, South Africa by Paphitis et al (2016) girls keep menstruation a secret as they view their menstrual blood as "dirty", they fear asking money from their parents to purchase sanitary products, they are teased by their peers if the sanitary product does not function properly, they are concerned that their clothes will be soiled clothes and are scared to ask to go to the toilet during class (Macgregor, 2016: 2). A Grade 7 male teacher in this study explained that "the children do not want to speak about it (menstruation). It is a taboo topic when it comes to menstruation. Most of our learners are African and they are embarrassed or shy when we speak about the topic." It seems apparent that some communities still have strong beliefs and myths regarding menstruation. The stigma attached to menstruation is harmful to the emotional state of girls as well as their menstrual and mental health. Cultural beliefs in different societies could construct negative attitudes towards the girls' behaviour, for example not being allowed to visit a religious place such as a church or temple during menstruation (Chandra-Mouli et al., 2017: 1; Dahal et al., 2019: 8; Miirio et al., 2018). A study conducted in Nepal by Dahal et al. (2019:7) showed that the majority of girls felt that menstrual blood was "unclean" (Haque et al., 2014: 2; Gultie et al.,

2014: 4; Koutroulis, 2001: 189; Schooler et al., 2005: 324). A Grade 6 teacher in the current study noted that when menstruation "...is mentioned, it is almost like a dirty thing". Social norms and cultural practices in South African society influence the meaning and interpretation of menstruation, implying that schoolgirls receive incomplete or inaccurate information on menstrual hygiene management (Dambhare, 2012: 105; Haque et al., 2014: 2; Gultie et al., 2014: 4; Boakye-Yiadom et al., 2018: 468). Incorrect information surrounding menstruation provided by parents or peers could affect a girls' self-esteem, menstrual health and education. One primary school teacher in this study mentioned that some parents "...do not sit down with the child and explain the topic, what is going to happen and how you must handle it. It is secretive in the sense that boys must not know, must not see the blood. Growing up, this is how we were taught". Such attitudes, according to Alam et al. (2017: 8), emerge because of various patriarchal cultures within society.

Mead (1934, cited in Blumer, 1986: 77) explains that symbolic interactionism includes interpretation, the meaning an individual gives to another's actions or comments and defining how the individuals should act. It highlights that girls attach meaning and interpretation to menstruation which is a normal physiological process with the onset of menarche. The actions of girls towards menstruation could be influenced by the response, understanding and comments of others, such as boys, peers, teachers and parents. The boys, because of a lack of knowledge or embarrassment, were reported to have laughed about issues relating to menstruation. A Life Orientation teacher interviewed stated: "When the girl starts her period in the classroom you will hear boys laughing, and the girl feels embarrassed". Mead (1934) and Blumer (1966, 1969) discuss how people act individually and together as a "collective action" (Rock, 1976: 46). The communication between individuals and societies is one of symbolic interactionism because the meaning that boys and girls give to the subject of menstruation and the way that they interpret and react in society provides evidence of the lack of knowledge and the taboos surrounding the topic. Boys, as they grow up, typically lack knowledge about the female menstrual cycle and the understanding of the woman's reproductive health because it is seen to not be a man's issue. Patriarchy could, therefore, affect boys and men in a powerful way that perpetuates and determines social attitudes towards menstruation. As part of patriarchal societies, females are generally viewed as second class citizens with little power to make decisions about their finances, health and education (Benshaul-Tolonen et al., 2020:2; Kaur et al., 2018: 4; Kirk et al., 2006: 2).

Adegoke et al. (2018: 139, 142), who conducted a study based in Nigeria, believe that Nigerian society is generally patriarchal. Walby (1989: 228) emphasises two key types of patriarchy, namely public and private patriarchy, explaining that:

Public patriarchy does not exclude women from certain sites, but rather subordinates women in all of them. In this form the appropriation of women takes place more collectively than individually. Private patriarchy is based upon the relative exclusion of women from arenas of social life apart from the household, with a patriarch appropriating women's services individually and directly in the apparently private sphere of the home (Walby, 1989: 228).

Therefore, patriarchy can be viewed as set of social relations, a social stratification based on sex, which is advantageous for males but puts pressure on the roles and activities of females. An example of patriarchal influence on menstrual behaviour can be seen in Northern Nigeria, where menstruating girls and women are not allowed to visit prayer centres because they are considered unclean and are believed to contaminate religious places. Maclean et al. (2020: 9) reported that in Kenyan society women were not allowed to work on the farms when they were menstruating because it was believed that the produce would become inedible and unsellable. The cultural beliefs for menstruating Kenyan girls and women are considered oppressive barriers but have become normalised (Maclean et al., 2020: 19).

The high school teachers in the current study also viewed menstruation as a stigma. However, Koutroulis (2001) explains that menstruation is constructed socially between biological and sociocultural factors. The sociocultural factors influencing menstruation have not received sufficient attention in the society. According to a high school male teacher in this study, the stigma was experienced "...especially in a younger age and puberty" between the age 13-14 years. He explained that the physical development of the girls' bodies at that age was a new phenomenon for them. "They do feel a bit awkward, and the boys are also not familiar" with the physical development of the boys' and girls' bodies. This is in alignment with the description of menstruation by Sharma et al. (2015: 376; Stubbs, 2008: 58) as a unique phenomenon to females. A Life Orientation teacher in this study indicated that: "... (I) deal with the girls separately and (I) had a doctor from town come in and talk to them about their bodies. The whole process depends on the age group. In junior grades, we separate them. I think boys are sometimes too immature to engage with what a girl goes through and vice versa."

Blumer (1986: 6) explains that culture, as a concept, arises from how individuals practice their customs, traditions, norms and values. Poor menstrual hygiene practices relate to existing cultural restrictions. The understanding of culture plays an essential role in constructing the views associated with menstrual hygiene practices. Therefore, according to Mathenge (2020:5), such views have an impact on the decisions made by girls regarding menstrual hygiene standards. In this study, the principal of a high school observed that the schoolgirls “do not want to use the reusable product. Despite their poverty, they try to go without asking us for products. The use of re-usable products is stigmatised amongst the schoolgirls and therefore affects learners”. Menstruating girls could have different interpretations regarding desirability of the reusable sanitary towel because they might not be familiar with it or comfortable using it. It is unlikely that a menstruating girl will use the reusable menstrual napkin because the product is not socially accepted within their community. Generally, menstruating girls use commercially available disposable menstrual products which are more acceptable in the community. Moon et al. (2020: 2) and Crankshaw et al. (2020: 15) confirm that poverty leads to many challenges concerning menstrual hygiene products globally. Sommer et al. (2017: 74) indicate that “the term ‘menstrual poverty’ has been coined to highlight the material and psychosocial deprivation that affects girls in low-income countries during menstruation at home and school”. Daniels (2016: 5), however, argues that ‘menstrual poverty’ is the inability to practice menstrual hygiene management because the lack of resources and available support can contribute to physical and emotional distress, absenteeism from school and teasing by peers. In many developing countries, according to the literature review, menstrual hygiene management is not yet a priority (see for example Sommer, 2016: 2). This is also true in South Africa because menstrual hygiene management is not included as a priority topic in South Africa's National Health Promotion Policy and Strategy (2015-2019) document. The National Health Promotion Policy only includes a short paragraph relating to the youth, where health promoters are encouraged “to address risky sexual behaviour, including multiple sexual partners, sex without a condom, and the consequences of unwanted pregnancies”. Additionally, the Integrated School Health Programme mostly focuses on health promotion and early screening for health conditions and illnesses, especially those conditions promoting learning difficulties, such as poor eyesight and cognitive challenges. The topic of menstrual hygiene management is not included in the document (Department of Health, 2014: 18) (see Appendix 2).

Johnston-Robledo and Chrisler (2013: 2) refer to Goffman's stigma as any stain or mark that sets some people apart from others. Undesirable comments from others could affect the actor mentally who could, therefore, feel rejected and not accepted as a person. Charon (2001: 193) suggests that Goffman develop the term 'stigma' to refer to the feeling of shame a schoolgirl experiences, where she does not feel worthy of being accepted socially, due to her menstruation. Consequently, stigma is a process where the reaction of schoolgirls towards menstruation could ruin the experience of the natural biological process of girls' bodies. The young schoolgirl could experience stigma and receive an adverse reaction from her peers. In her study, Koutroulis (2001) discusses ways in which the body has been discovered and theorised. She found that healthy menstrual blood is associated with being dirty and not as a normal psychological process of a girl's body because of the stigma and secrets surrounding menstruation. A study conducted by Tegegne et al. (2014: 2) showed that Nigerian adolescent girls interpreted and gave a different meaning to menstruation and perceived the natural physiological process as a release of "bad blood" from the body. One Grade 6 teacher in the current study confirmed the stigma attached to menstruation: "Usually learners feel embarrassed to speak (about) it. If it is mentioned, it is almost like a dirty thing." As a result of ignorance, boys and girls are shy to talk about menstruation. Fauziyah (2020: 25) argues that children's ignorance about menstruation could result in them finding it difficult to accept menarche.

Cooley's theory of the self describes that, through interaction with others, individuals learn about who they are (Shrauger and Schoeneman, 1979: 550). Cooley presumes that social practices construct the lives of the people within society. Therefore, we imagine that the assessment individuals make about how they appear and present themselves is influenced by their feelings about their assessment of themselves. To understand the behaviour of the menstruating girl, the meaning the girl attaches to a particular situation should be understood, as well as the act that is taught to suit the situation (Manis and Meltzer, 1978: 169). One high school teacher noted that "when a girl did start to menstruate; she would cover up if she had soiled her clothes". The schoolgirl feels anxious when she starts to menstruate at school and imagines what others are thinking, including what they are thinking about her soiled school clothes. Individuals generally come to their own conclusions based on what others believe. Cooley's looking-glass self-concept can be used to explain how menstruating girls control and manipulate responses to protect themselves when they are in an uncomfortable situation (Manis

and Meltzer, 1978: 169). Girls become aware that others are watching and assessing them and in turn react, using that specific knowledge of others to shape their reaction.

A Grade 7 male teacher in the current study explained that he had never experienced assisting a menstruating girl. During his class "...the word and topic (menstruation) never came (up)". As a teacher, he "...would not deal with that chapter or section" and relegated the teaching of "menstruation and physical development of girls" to the principal – a female. Yilmaz (2019: 2) and Crankshaw et al. (2020: 12) note that there is a general lack of support from male teachers because of cultural beliefs. This particular teacher was older and felt uncomfortable sharing knowledge and information about menstruation with girls. According to research conducted by Sommer et al. (2019: 16), teachers often feel uncomfortable following the curriculum when a lesson is about menstruation and pubertal changes to the body. Mahon et al. (2015: 9, 10; Gultie et al., 2014: 8) explain that male teachers should be confident and knowledgeable about menstrual hygiene management in order to support female teachers and to minimise the stigma in the school environment surrounding menstruation. Men could contribute positively towards cultural norms and behaviours and participate in girls' decision-making around menstruation and hygiene management needs. The empowerment of men around menstrual health is paramount. Men and boys could create a comfortable environment by respecting and supporting menstruating girls and women with their menstrual needs.

High school teachers in this study reported that they had not experienced stigmatisation regarding menstruation. A high school Life Orientation teacher was interviewed and stated that there was not a "...negative stigma around menstruation because all the girls do get it and understand what it is all about". At (this) school, "girls are very open" around menstrual hygiene management compared to "... co-ed school or even a boys' school". Menstrual hygiene management was less challenging at this high school because of the composition of learners. The girls were more comfortable when they were menstruating or when talking about menstruation because of their school environment. Furthermore, the girls were better prepared for menstruation after having attended primary school, which made the transition to menstrual hygiene management at the senior school easier. At a high school in this study, the teachers noted that the learners "...are quite open about discussions relating to menstruation...". The school environment, the availability of resources and supportive teachers could thus reduce the stigma around menstruation for boys and girls. This is echoed by Hales (2018: 5), whose study in India showed that both boys and girls should be taught about the process of menstruation

and menstrual hygiene management as a section in the curriculum, as teachers believed that it was their responsibility to share knowledge with both sexes at school.

One high school principal in this study explained that his school had invested "... a lot of work in Life Orientation" around menstruation. He stated that the discussion around menstruation could happen in open spaces, in subjects such as "Natural Science, Life Orientation, even English. It is a space where girls should feel free to voice their opinion and (an opportunity to) try to get girls to speak what is on their minds and hearts." He was also aware that "...girls from some communities, where it is seen as something to hide, do not discuss it ... (they) feel ashamed or confused. (We are) quite sensitive to the fact that those different girls come from different backgrounds and have different views on menstruation." At this school, a psychologist and life coach were available to assist the girls if they experienced challenges surrounding menstruation. It is interesting to note that the principal of this school was a male teacher and during the interview appeared very knowledgeable on the topic of menstruation and indicated that he was concerned about menstruating girls' welfare.

5.2.2. Attitude/approach towards assisting a menstruating girl

5.2.2.1. Male

Mead (1934) believes an object has meaning for the person who sees it as an object (Blumer, 1986: 11). For a girl in a school environment, menstruation is an object that can be affected by inadequate menstrual hygiene and the management of menstruation. The teacher interprets the situation of the menstruating girl in the classroom. The attitude (reaction) of the educator develops meaning according to the way in which he/she assists the menstruating girl in the classroom (Solomon, 1983: 310). A male teacher in the study explained how he assisted a menstruating girl, stating that he would "... excuse (her) from class. You allow it and not create hype, either (through) facial expression or tone of voice. You allow it without making a big fuss about it." The teacher's approach demonstrated his experience in dealing with the situation without embarrassing the girl. The menstruating girl had perhaps received the necessary information and education about menstrual hygiene practices and knew what to do without further assistance. A principal in this study responded that "in a previous school ...we had Grade 6 and Grade 7 teachers, mostly male teachers, and there were no female teachers to call on. Yes, I had to. Presently, no...we have female staff members the girls feel more comfortable approaching." The principal did not indicate any discomfort about assisting menstruating girls

at his previous school, but his social environment changed when he moved to a new school. The primary school principal was comfortable knowing that the girls preferred having female teachers assisting them. The change of social environment impacted on his approach towards menstruation because of the resources that were available at his new school, such as a sanatorium.

Some male teachers at the senior schools in the study referred the menstruating girl to their female colleagues. According to one teacher interviewed, he assisted menstruating girls several times, "... but as a male, I would ask one of the other female learners or teachers to assist and send them to the office where they can deal with the situation". Another male teacher explained that he would "... call a female teacher to assist the girl". The studies by Shah et al. (2019: 8) and Crankshaw et al. (2020: 12) revealed that male teachers in rural Gambia and Gauteng schools were embarrassed to talk to students about menstruation. The reasons why male teachers did not feel comfortable talking about menstruation was due to their culture as well as their belief that, as a man, their knowledge was limited. Furthermore, male teachers believed that it was inappropriate to talk to students because both the teacher and pupils would be embarrassed and feel uncomfortable. The discomfort felt by male teachers could result in missed opportunities to educate learners about reproductive health. As a result, educating and assisting pupils during menstruation became the responsibility of female teachers. Blumer (1986: 82) states that, according to Mead (1934), the concept of the generalised other can be explained as an individual who has the same expectations and thoughts of others in a particular social context and tries to imagine how they should behave in that situation. The individual constructs and adjusts his or her action according to the interpretation of others' actions in society. Cultural beliefs, socialisation factors and experiences associated with menstruation could influence male teachers' attitudes and behaviour towards menstruation. The male teacher mentioned above regarded menstruation as a specifically female issue and therefore believed that a female teacher could relate better when assisting the menstruating girl. Similarly, in a study conducted by Crankshaw et al. (2020: 13, Daniels, 2016: 43), it emerged that female teachers were the primary source of menstrual information for schoolgirls and provided support and assistance at school during menstruation. The girls were of the view that the female teachers were competent to teach menstruation health because of their personal experience and the fact that they understood menstruation.

Blumer (1986: 93) explains that attitudes are prepared in advance by individuals and this directs and moulds an individual's action. The negative attitude and behaviour of some male teachers in the current study highlights their view on menstruation. The principal of a high school in this study had a different experience to that of teachers because he never had to assist a menstruating girl in the classroom. However, he said that he did "... have someone in my office who was menstruating, and I noticed that on her skirt when she stands up. I (made) her aware and asked her to go and check it out. Again, I am quite sensitive to the fact, being a male teacher, that pointing it out to a learner could be quite embarrassing for her." Hochschild (1979, cited in Fields et al., 2006) explains that individuals could work on their feelings and try to develop a proper response according to a given situation. The principal was trying to respond in the correct manner when he was confronted with the situation, without causing further embarrassment for the menstruating girl.

5.2.2.2. Female

In the current study it was found that generally the menstruating girl, because of the significant role teachers played in her life, felt more comfortable asking for assistance from a female teacher. The Cambodian High School girls in the Daniels' (2016: 20) study reported that they "[feel] that teachers were capable of being supportive because they were older and educated. Female teachers, particularly, were preferred due to personal experiences of menstruation and having a feminine perspective on girls' needs." The Cambodian girls explained that those qualities displayed by the teacher made them feel more comfortable when asking questions about their menstrual needs. One female high school principal in this study reported that she had assisted menstruating girls more than once. She said: "A first timer, Grade 8, 13 years old, (was) given counselling (with onset of menarche). I explained the body process, the meaning of what was happening, talked about hygiene, how to use the pad and supplied her with (a packet) of pads." Afterwards, the teacher informed the mother about her daughter's first menstruation. Often girls develop anxiety, and a feeling of shame and embarrassment with the onset of menarche (Kumar et al., 2013: 19). Furthermore, another high school principal said that she "will give her (menstruating girl) soap and a washcloth to go wash up in a separate toilet. I (teacher) gave her sanitary towels." The female teacher was supportive towards the menstruating girl when she needed assistance. Grankshaw et al. (2020: 13) discovered in their study that female teachers were a powerful resource and support for menstruating girls in the school environment.

5.2.3. Knowledge of and understanding menstruation

The question of how and where boys and girls should be educated about menstruation and hygiene management is paramount. Menstruation, a normal biological process of the girl's body, has severe implications for the society in which the girl lives. Blumer's (1986) symbolic interactionism can lead us to understand the girl's interpretation and meaning of social roles and behaviour that is learned from her mother through social interaction. The mothers furthermore transfer their knowledge and interpretation of menstruation by communicating to the young girls. Therefore, girls identify with the social role of their mothers prescribed by the society through socialisation. Mead (1934) provides the basic principle of identity by explaining that culture shapes the self and social behaviour of an individual. Therefore, the role identity is that part of the person which is based on a girl's social interactions, relationships and related roles within the society (Morella et al., 2012: 150). With role-taking, the menstruating girl seeks the direction, guidance and purpose of the parents', teachers' and peers' actions towards menstruation. The girl forms and adjusts her action towards menstruation according to the interpretation of her teachers, peers and parents (Blumer, 1986: 82). According to a literature review study undertaken by Vaughn (2013: 4) among schoolgirls in sub-Saharan Africa, "parents typically do not discuss sex or menstruation with their daughters until menarche. Many parents believe that it is the school's responsibility to broach these subjects." According to most teachers in my study, boys and girls should be educated at school during Life Skills and Life Orientation lessons. The responsibility of the teacher is to transfer accurate knowledge about menstruation and to find innovative strategies on how to share information regarding menstruation and hygiene management. The teachers in this study had different opinions on how and when boys and girls should receive education around menstruation. The Life Orientation teacher at one of the public schools shared how she spoke about menstruation in the classroom: "You teach boys and girls...teach them at the same time about the changes they will go through, changes in the boys' bodies and that of the girls'. I would ask the boys about the girls' changes and vice versa. The boys can understand girls better, and girls can understand boys better. It helps because then they do not laugh or tease and there is no bullying as far as I know." The approach of this teacher towards menstruation in the classroom had a positive effect on the learners. Some studies by other scholars assume that puberty education could encourage behavioural changes and provide psychological support for boys and girls (Aluko et al., 2020: 3; Gultie et al., 2014: 8; Vaughn, 2013: 23). It demonstrates that, by including boys in the conversation of menstrual hygiene management, their behaviour and

attitude changes towards menstruating girls and empowers boys with accurate knowledge about menstrual hygiene management.

The education of boys and girls is essential to minimise the stigma around menstruation. Educating boys and girls separately about menstruation could perpetuate the stigmatisation and add to the myths surrounding the topic. Overcoming the stigma around menstruation starts with education. According to a principal in the study, "Boys must be educated about girls' hygiene, about the menstrual cycle, about everything to do with girls. It will affect them at some point in their lives. They need to be aware, and they need to be sensitive to what is happening. It is a subject that does not have a place in one classroom." This type of education will encourage boys and girls to communicate with each other about reproductive health as the need arises and prepare boys in the development of their future relationships with girls. According to a study by Kumar (2013: 217), the appropriate environment to create menstrual hygiene strategies could be within educational institutions. The transferring of accurate information and practices around menstrual hygiene management should be done at school because the pupils spend more time at school than at home. Educating boys and girls about menstruation and hygiene management could create constructive discussions and correct general misconceptions surrounding menstruation. Mead (1934) explains the generalised other as involving the individual adjusting his or her actions according to the actions of others and determining what their actions or intended actions are, i.e. to understand the meaning of their actions (Blumer, 1986: 82). As such, the generalised other symbolises a set of attitudes and roles that individuals utilise as guidance to figure out how to react in a specific situation, such as menstrual hygiene management within the school environment. The menstruating girl in the school environment expects her teachers to educate and support her around menstrual hygiene management because she is not always able to get the correct information at home. The high school Life Orientation teacher in my study stated that to educate boys and girls at the same time at school about menstrual hygiene management was a particularly good platform because the "educational environment is always a good environment to educate both sexes. School should be preparing kids for society and that is why it is important to educate boys and girls to understand each other ...attending a boys' and girls' school gives them (boys) the opportunity to interact with the girls."

Cultural diversity at schools could affect the education and sharing of information regarding menstruation. One high school teacher in the study thought that "... if we take our school,

where kids are coming from a broad spectrum of different backgrounds, in certain cultures it is not easy to talk about, and in some cultures, it is not a big deal". The boys and girls come from different cultures where menstruation could be viewed as taboo, be stigmatised, have certain myths attached, be a secretive topic or openly discussed at home. Another teacher in the study reiterated that education around menstruation should happen at school. She indicated that "as a black woman...at home, you do not talk about such things in front of males. ...that place should be the school because they are here to learn, and we are here to give them knowledge about whatever. So, I think school is the best place for them so that they can even ask questions." According to a study conducted by Mason et al. (2017: 2) in India, menstrual hygiene management continues to be an issue of gender inequality, especially for women and girls living in low- and middle-income countries. Mason et al. (2017: 2) furthermore explain that countries with inadequate resources and information available for basic hygiene management struggle with gender equality. Mason et al. (2017: 9) mention, in their study, that the boys requested that menstruation should be included in the school curriculum. It is evident that the boys were interested in obtaining further information and realised that education within the school curriculum would provide the foundational information they needed in their informative years (Mason et al., 2017: 7).

A Grade 6 teacher interviewed in the current study suggested that boys' and girls' education and information around menstrual hygiene management should "... be started in Grade 5, as that is when more of them start menstruating. Maybe we should start in Grade 4." The early onset of menarche means that girls are often unprepared and lack knowledge around menstruation. The young menstruating girl, because of a lack of knowledge, could have a negative experience of menstruation. Girls' experiences of menstruation impact on the situations in which they find themselves, and we need to bear in mind that these experiences in turn are shaped by the cultural meaning ascribed to the experience. Blumer (1986:6) notes that different situations influence individual experiences. This highlights that different schools (public and private) are socially and hierarchically different and will, therefore, influence the way girls and boys, teachers and other staff members experience and react to the issue of menstruation. Some primary school teachers in the study did not observe stigmatisation around menstruation because they believed that their school offered education around these issues. For example, one Grade 6 teacher noted that her school offered "... sex education and sexuality education ... from Grade 6 and particularly in Grade 6 and Grade 7, to both the boys and the girls, in a mixed class. So, they are aware that they can discuss it openly...". The learners at

the two primary schools had an advantage because of prior knowledge about the physical, psychological, emotional, social changes of the body for boys and girls.

Studies have shown that institutional knowledge and correct information can cultivate a positive attitude towards puberty and make girls accept menstruation as a normal psychological process of their body (Allen et al., 2010: 134; Chandra-Mouli et al., 2017:12). Spadaro (2018: 34) explains that Swedish schools offer sex education for learners. Sweden was the first European country to implement school-based sexual education lessons in their school system in 1955. The education starts at an early age, where the teachers answer questions from learners about the functioning of their bodies and sexuality before puberty. The education is a holistic approach that focuses on anatomy, relationships and emotions. The Swedish women consider menstruation as normal and part of their daily lives. The teachers at a primary school in the current study reported that the topic of menstruation was not so challenging because the girls were far more receptive to the information, compared to some of the other participating schools in the study. A Grade 6 teacher in my study stated that menstrual education is less challenging "...because we are an all-girls school. I think it is quite easy for us to give the girls proper advice and take away the stigma..." Smiles et al. (2017: 186) explain that "basic knowledge of menstruation and how to manage it safely is essential to establish a foundation for healthy behaviour and decisions related to reproductive health, as well as to empower girls to access their reproductive rights". Accurate information and education of menstrual hygiene management could encourage positive experiences when girls are menstruating and promote equality and non-discrimination against them. However, challenges of menstrual hygiene management could compromise the girls' education, mobility and other activities and therefore increase their vulnerability as females.

As previously established, symbolic interactionism refers to how individuals come to understand the world around them as well as the way the interaction between persons is shaped by the mutual exchange of interpretation (Blumer, 1986: 78). Mead (1934) explains that human beings live in a world where the environment or objects influence their understanding on which they build their actions. Although menstruation is a biological function, the way that girls act towards menstrual hygiene management it is socially constructed (Blumer, 1986: 68). Therefore, meaning paves the way for the person to view the object, to act towards the object and to communicate about the object. Different people attach different meanings towards the same object (Blumer, 1986: 69). The meaning and interpretation of menstrual hygiene

management are different for parents, teachers and peers. Menstrual hygiene management affects meaning and interpretation around menstruation. Crankshaw et al. (2020: 11) discovered that the level of knowledge about the menstrual process can positively or negatively impact girls' experiences of menarche. Menstrual hygiene education for boys and girls could empower them. Therefore, the school should assume that learners are not knowledgeable about the topic of menstrual hygiene management and should address the topic from this standpoint.

Socio-cultural practices influence the menstrual hygiene practices and education of girls (Mathenge 2020: 5; Allen et al., 2010: 132; Mahon et al., 2015: 7), which also includes cultural expectations, provisions, restrictions, religious restrictions and parents' levels of education. Mthenge's (2020) study discovered that menstrual hygiene practices improved with the level of parents' education because these parents would ensure that girls received adequate information about menstruation and hygiene management. Furthermore, mothers are the adolescent girl's primary source of information on menstrual hygiene management in developing countries (Boakye-Yiadom 2018: 478; Dolan et al., 2013: 10; Mahon et al., 2010: 102). Girls do not always receive accurate information from their mothers about menstruation because their mothers are not necessarily well informed themselves about menstrual hygiene management. Chandre-Mouli (2017:2) notes that "mothers are the primary source of information, but they inform girls too little and too late and often communicate their own misconceptions" about menstruation to their girls. Therefore, Boakye-Yiakom's (2018: 478) study in Ghana at a junior high school recommends that interventions to improve the knowledge of menstrual hygiene management should also include the mothers. One high school teacher in this study believed that "...both parents and teachers should be involved in education around the topic" of menstruation. Although both parents should be involved, the mother typically has a closer relationship with her daughter and is in a better position to communicate menstrual health issues than the father. Another teacher in the study believed that educating boys and girls about menstrual hygiene management "...should be a partnership between home and school". According to Kaur (2018: 5), the school and home are where learners spend most of their time during their growth and development and therefore education about menstrual hygiene management at both school and home would allow boys and girls to respond more positively to changes and challenges around menstrual hygiene management.

Nelson Mandela (1994) advocated education as a tool to provide change and we can see that education around menstrual hygiene management could change people and communities as

well as attitudes and behaviour towards menstruating girls. The World Health Organisation (2016) developed the sustainable development goals, and goal four is to ensure that all children receive globally “inclusive and equitable education and promote long-life learning opportunities for all”. All learners, teachers and parents must have the opportunity to be educated about menstrual hygiene management without discrimination and prejudice. One Grade 7 primary school teacher in the study observed that “in the curriculum, it is a vague topic and there is barely enough information about hygiene and menstruation; even when you do the topic of puberty there is just the basic information, and they do not expand on (menstruation)”. The teacher went on to say, “I do not think the learners have enough knowledge”. Indeed, all the learners in Crankshaw et al.’s (2020: 13) South African study “highlighted significant gaps in the quality and consistency of the delivery of sexuality education (which is included in Life Orientation lessons as part of the South African school curriculum)”. I noted during the interview with one Grade 7 teacher that he was concerned about the lack of information in the Life Skills textbook for the teachers and learners about menstruation and hygiene management. He researched menstruation and explored the internet to add to the inadequate information provided in the textbooks. This teacher was of the opinion that teachers should receive regular training about menstrual hygiene management. This includes the transfer of accurate information and education, the provision of safe, hygienic and available menstrual products, accessible water and sanitation and bins for the disposal of the used menstrual product. Sommer et al. (2017: 81) agree that teachers need training on menstruation and menstrual hygiene management issues. In their study in Zambia, they recommend that supportive counselling and information about puberty be provided to girls and boys.

5.2.4. Educating boy and girls about menstruation

Male and female teachers in the current study experienced different challenges when educating boys and girls about menstruation. Blumer (1986: 70) defines collective action as the phenomenon where people act individually and together as a group collectively. “Joint action” can be interpreted as a group of individuals and their activities that matter to each other. The communication between individuals and societies is linked to symbolic interactionism because the meaning that boys and girls give to the subject of menstruation, and the way they interpret and react in society, provides evidence of a lack of sufficient knowledge and the perpetuation of myths surrounding the subject. Social roles, therefore, influence the way individuals and groups within the community behave in response to issues such as menstruation and hygiene management. In the school environment, the different reactions of girls, boys and teachers

should be merged so that their actions form a joint action and a best-fit approach towards menstruation and hygiene management (Blumer, 1986: 70). One Grade 6 teacher in this study, a mature female, reported that the topic of menstruation was discussed regularly at home by her son and daughter. She further explained that the reaction of some boys to the topic of menstruation indicated their lack of knowledge. In some cases, they were perhaps embarrassed because they giggled. She noted the following: “Those who have sisters do not find it strange and you can see where it is not a normal topic of discussion at home. So, it is often the boys who do not have sisters, not because they are funny, but because they are nervous, and it is something they do not know.” Once the teacher had informed the learners about menstruation, the boys stopped giggling. Hales et al. (2018:6) confirm that teachers felt that boys who knew about menstruation and hygiene management had a more positive attitude towards female learners. The boys were encouraged not to tease the girls, and this created a more comfortable learning school environment.

One primary school principal in the study expressed that teaching girls was “definitely easier” than educating boys about menstruation. The girls “who experience it (menstruation), you (the teacher) can relate to them (the girls) a little more personally. They have to go through this thing (menstruation).” The teacher acknowledged that teaching girls about menstrual hygiene management was easier and more comfortable when boys were not included in the conversation. According Setyowati et al. (2019: 6), a survey of the World Health Organisation (2010) discovered that during the early stages of adolescence (10-12 years), the understanding of the physical growth and development of the body was limited, compared with the middle stage of adolescence. The behaviour and attitudes towards reproductive health of adolescents in the early stages was very poor. Often it is difficult for learners who are too young to comprehend information about menstruation and physical and psychological changes of the body because of their immaturity.

5.2.5. Primary sources of menstrual information

5.2.5.1. Mothers

Rembeck et al. (2006: 713) show that girls confide in their mothers, peers, teachers and siblings during the onset of menarche, but they feel that the mother is the most important source of information. Mead (1934) explains that the ‘significant other’ is the person who plays an important role in the life of the schoolgirl. These can be teachers, parents, peers and siblings

(Charon, 2001: 76). Educators react differently to the menstruation (action) of the schoolgirls and first interpret what menstruation means for themselves before they react (Blumer, 1986: 79). The concept of significant others explains that the individual's (teacher, parents and peers) opinion is vital to the menstruating girl, because it can influence the girl's thinking about herself. The primary source of information for some male and female teachers in the study about menstruation was their mother. According to Kirk et al. (2006: 2), misinformation about the natural bodily process could perpetuate the stigmatisation attached to menstruating girls. A study by Thakre (2017: 4) furthermore highlights the need for correct information and appropriate management around menstrual hygiene management for girls. Daniels (2016: 14) found during her research that Cambodian High School girls believed that if they received maternal support when menstruating, it alleviated their fears, shyness and discomfort. The interpretation could be that a mother's support towards her daughter increases the access to knowledge and resources during menstruation. A Life Orientation teacher in this study shared her first menstruation experience: "I was in primary school. I started early. I was afraid to tell my mother, but ultimately did go to her. She sat me down and told me everything and explained everything about menstruation." The teacher, as a young girl, was scared to inform her mother about her first menstruation because of the lack of premenstrual knowledge.

A Grade 6 teacher in the current study stated that her primary source of information about menstruation was: "My mother spoke to me ...". Although she started menstruating very late, she had prior knowledge about menstruation with her first menstruation. Rembeck et al. (2006: 713) concurs that the importance of adult information regarding menstruation could be associated with more positive attitudes towards menstruation and that a "mother's timing and ability to communicate attitudes towards menstruation and the body are as important as those in a girl's immediate environment". The empowerment of girls by ensuring that they have accurate information and knowledge about menstrual hygiene management is very important on the journey of womanhood. Aswathy (2019: 755) suggests that although mothers are the primary source of information, they often do not provide adequate support to their daughters before menarche due to their cultural beliefs.

5.2.5.2. Peers

Fauziyah et al. (2020: 25) discovered that adolescent girls in Ghana obtained most of their information about menstruation from peers who had already experienced their first menstruation. The sharing of negative experiences about menstruation by peers could cause

anxiety for girls when menstruating. However, knowledge and information regarding menstruation with the onset of menarche is crucial in minimising anxiety. According to Aksan (2009: 902), the descriptions that underlie symbolic interaction are the foundation of meaning. For Aksan (2009:902), “symbolic interaction examines the meanings emerging from reciprocal interaction of individuals in a social environment with other individuals and focuses on the question of ‘which symbols and meanings emerge from interaction between people’.” Individuals (peers) are also viewed as role models who have a significant influence on a schoolgirl’s behaviour, self-esteem and conduct regarding menstruation. The girls internalise the behaviour of others (peers) in the school environment and community and act accordingly. A girl, experiencing the onset of menstruation, could feel more comfortable discussing her experience with her peers rather than her mother. Peers are described by Fauziyah et al. (2020: 27) as people with more or less the same maturity level. Teenagers decide themselves what to do and whether to behave in the same way as their peers. Peer support provides belonging and identity to a group and with each other. Fauziyah et al. (2020: 27) highlight that peer support influences an adolescent’s attitude in her preparation for menstruation. The Life Orientation teacher at one public high school in the study confirmed that she “was at a boarding school where the older girls would give guidance” about menstruation. The availability of menstrual information from peers could cultivate a positive or a negative emotion during a girl’s pubertal change (Sommer et al., 2019: 9).

5.2.5.3. Siblings

Sommer et al. (2019: 8) report that some adolescent schoolgirls in Madagascar learnt about menstruation from their sisters. The girls would inform their sisters first about the onset of their first menstruation before telling others, even their mother. Although they received guidance about menstruation from their sisters, this would include information such as menstruation and hygiene management needing to be a secret. A girl’s response to the information about menstruation could influence her emotions, attitudes and behaviour during the onset of menarche and menstruation. Blumer (1969) believes that meaning occurs due to interaction with other people within the group and is not intrinsic (Aksan, 2009: 903). Humans therefore develop meaning because of their experiences. One Grade 7 teacher in the study shared her experience of her primary source of information: “I had an older sister and we were very close growing up. So, when she was 13 years old, I learned from her experience.” The menstruating girl felt comfortable sharing her experience of menstruation with her sister rather than with her mother.

5.2.5.4. Teachers

Setyowati (2017: 6) states that schools are appropriate places for female learners to be educated about menstruation, as it offers access to a safe and comfortable environment. Educating female learners will improve their knowledge about menstrual hygiene management, their behaviour and promote menstrual hygiene. A Life Orientation teacher at a rural school in the study noted that in a “Grade 9 question paper on menstruation, the questions (related to) menstruation (and) sex. The classroom is where these learners get the information and knowledge from the teacher.” The teacher explained that the old curriculum did not include a discussion on menstruation as a topic. The consequences of incorrect information from peers and siblings could cause emotional responses such as fear, anxiety and embarrassment for the menstruating girl. Gultie’s (2014: 8) study in Ethiopia indicates that the first source of information about menstruation for a girl should be the teacher, to ensure that correct information and knowledge is being transferred. Boosey et al (2014: 2) emphasise that “girls have a human right to education and educating a girl is a wise investment for development, producing ‘high and long-lasting returns’ for families, societies and subsequent generations”. Educating girls about menstrual hygiene management will ensure that girls are able to achieve their potential at school, improve maternal bonds and promote the economic development in the country.

5.2.6. Gender equality

Sommer et al. (2017: 73) found that the United Nations Sustainable Development Goal 10 (SDG) focuses on the significance of gender equality in “achieving inclusive, equitable and quality education for all (boys and girls). This provides an opportunity for the education sector to focus on the needs of adolescent girls, including attention to ways in which physical and social characteristics of schools may create gender-equitable learning environments.” Gender is a socially constructed entity based on biological sex. Menstrual education within families and school environments is impacted by gender as a social construct because the male and female puberty development processes differ. Howard and Hollander (1997: 12) acknowledge that the many roles performed by women and men throughout their life cycle have an impact on gender. Gender inequality often results in education systems that neglect to educate boys and girls equally about menstrual hygiene management. Equal education and achieving inclusiveness are also important aspects of development. This ensures that both boys and girls have equal opportunities to complete their primary and secondary schooling by 2030 (United Nations, 2015). Girls should receive optimal education at school but absenteeism due to soiled

clothes and menstruation does not provide them with an equal opportunity. Mohammed (2020: 5) found that menstrual-related absenteeism affected school attendance among adolescents in Ghanaian schools. The teachers in Mohammed's study disclosed that sometimes the girls asked for permission to go home to manage their menstrual pains. Similarly, the Life Orientation teacher at a senior school in the current study explained that "most of the girls would tell me they have menstrual cramps and ask to go home". Those girls missed the lesson as it was not revisited when they returned to school the following day. Boys are at an advantage because they can continue with their education without any interruptions.

5.2.7. Teachers' attitudes towards discussing menstruation with boys and girls

5.2.7.1. Male teachers

Most male teachers in Kenyan schools felt uncomfortable discussing menstruation with schoolgirls. They thought that it was not their role to educate girls about menstruation and they were not prepared, or confident enough, to share the information with their students because they had not received formal training (Chandra-Mouli, 2017: 6). One primary school principal in this study found it challenging to educate boys and girls about menstruation and indicated that he would separate the classes. He said the following:

I would get a female teacher to speak to the girls and I would talk to the boys. As (an) educator you do not always know what the reaction with (each) specific class will be. What prior knowledge do they have? What are their capabilities? You have to keep in mind where they are. They are not comfortable to (be) asked questions freely and even on the topic of menstruation. If both boys and girls are together in the classroom, I find it difficult. I will skip certain sections as a male teacher.

This statement indicates that the principal was uncomfortable discussing reproductive health, including menstruation, with his pupils. Furthermore, a Grade 7 male teacher in the current study indicated the following:

I do not touch on the topic. It is part of the curriculum in Natural Science, but I do not cover that section. The school principal (a female) does that. If I really have to do it and there is nobody else willing to touch on the subject, I will approach it in a very clinical way, it is based on facts and I will handle it factually from a biological perspective.

Stryker (1980: 56) observed that within their social environment humans interpret the meaning of their actions and behaviour in a physical, biological and psychological way, noting that “these words represent conditions that are or can be taken into account by seeking their ends. Conditions that can guarantee, enhance, impede, or deny the success of their efforts.” Language as a symbolic system refers to different aspects of these worlds for the actor to give meaning to human interaction. Furthermore, Blumer (1986: 81) explains that “self-indication is a moving communicative process in which the individual notes things, assesses them, gives them a meaning, and decides to act on the basis of the meaning”. Words explaining social objects, such as menstruation and hygiene management and, for the purpose of the current study, the schoolteachers, as actors, provide meaning and interpretation of menstruation, the action as well as the opportunity to educate boys and girls about the topic during the interaction with self and others.

In this study, a senior school male teacher described his experience of educating boys and girls about reproductive health as challenging for him because, as a Xhosa male, he found that “some of them want to entertain more about the topic and then you have to discipline them. We do not call these names in Xhosa because in Xhosa the names do not sound good and are not very sensitive. So that is most challenging. You would explain it in English and not in Xhosa.” The Xhosa language is the mother tongue of learners at this particular school and therefore explaining menstrual health to the learners in their own language was explicit and crude, according to the teacher. The English terms of reproductive health do not always provide the same meaning and interpretation as in Xhosa.

5.2.7.2. Female teachers

Some female teachers in the current study found it challenging to educate boys and girls about menstrual hygiene management. A Life Orientation teacher at a public high school explained her experience of teaching boys and girls about menstrual health:

I think some of the boys are not informed and they do not always know how important certain topics are like menstruation. So, in co-education schools, it seems like the boys do not really pay attention when it is a topic relating to girls. They joke and do not realise what the significance is of what is being taught. So, it can be difficult where boys and girls are together.

This teacher felt intimidated by the boys' behaviour when she was speaking about reproductive health and stated that it created an uncomfortable atmosphere in the classroom. Askan et al. (2009: 903) explain that "symbolic interaction is a process including the interpretation of action because symbolic meaning might be formed differently for anyone". Hales et al. (2018: 5) conducted research in India suggests that some boys would use their minimal knowledge to tease girls about menstruation. The teachers in their study observed that the root of these acts was embarrassment. They further explained that the males in India believe that menstruation was not important to men and therefore it was a taboo topic and should be kept hidden. According to the literature, males globally perceive menstruation as dirty and shameful (Asha et al., 2019, Hales et al., Kirk et al. and Sommer et al., 2015) The behaviour or actions of boys had a different meaning and interpretation for the teacher in her study and therefore made it difficult for this teacher to educate boys and girls together. A senior school principal in the current study said: "...it could be challenging. Boys can be very embarrassed about it and a lot of giggling is going on. It would be quite difficult in a bigger group situation." At certain schools in this study, the teachers experienced difficulties in controlling the learners when educating them about reproductive health, including menstruation, because the learner ratio per class was above the norm. For example, learner ratio per class or teacher in South African schools are normally, for primary schools, 40 and for senior schools, 35 learners per class. Certain primary and senior schools in the current study had higher numbers of learners per class and therefore teachers found it challenging to discuss reproductive health with their learners (Politic web, 2012).

5.2.7.3. Methods of involving boys in the conversation of menstrual hygiene management

Hales et al. (2018: 6, 7) suggest some strategies for teaching boys about menstruation and menstruation hygiene management. The teachers in their study in India agreed that it was the educational system's duty to educate boys and girls about the biology and physiology of their bodies but added that it needed to include menstrual hygiene management and cultural ideology, and that it needed to deconstruct the negative perceptions about the female body (Hales et al., 2018: 6). Furthermore, Hales et al. (2018: 7) confirm that the Indian teachers had mixed opinions about whether boys and girls should be taught together or separately. The first opinion was to educate girls separately from the boys until such time as they felt comfortable. The second view was that by teaching mixed classes, boys could be sensitised to the topic of menstruation and to practice more mature behaviour towards girls.

One high school Life Orientation teacher in the current study thought that “...boys should know (about menstruation) so that girls can feel comfortable and not be embarrassed...because in the future they will be fathers who raise a girl”. The teachers in India, according to Hales et al. (2018: 6), agreed that the appropriate age to educate boys around menstruation was 13 to 14 years. These teachers tried different approaches to educating children about menstrual hygiene management at school, including workshops, open discussions, lectures, role-play and shared experiences. However, Johnson-Robledo et al. (2013: 27) disagree with separating boys and girls when teaching them about puberty because it gives the impression that this is a ‘special’ topic and not an open discussion. Johnson-Robledo et al. (2013) further explain that private or separate conversations between mothers and daughters creates a notion that menstruation should never be discussed openly because it is an embarrassing event, creating stigma around the topic. One primary school principal in the current study indicated that he separated the boys and girls “...because then the girls would feel more comfortable and ask questions and boys as well might be more open and comfortable to ask questions. If I had to deal with that topic, (with) both boys and girls in the situation, I would like to have done it separately (or separate). Explaining to them, it might be a bit embarrassing with the opposite sex (in the class) with them.”

5.3. Conclusion

This chapter has focused on the following goals: a) exploring the meaning and interpretation of menstrual hygiene management by educators and other actors in schools in the Makana district; b) gaining an understanding of the educators’ attitudes towards gender equality and menstruation; and c) exploring the extent to which the educators interpret and transfer their own knowledge about menstruation to boys and girls. Various themes emerged, allowing for an interpretation of menstrual hygiene management and correlating with the goals of the research within the theoretical framework of symbolic interactionism.

The component of software discussed by Hennegan (2020: 639) can be regarded as the access to accurate information and knowledge about menstrual health and hygiene management for boys and girls. The following quotation from Geetz et al. (2016: 38) summarises the software component of menstrual hygiene management and the issues around menstruation as being “the onset of menstruation where a girl learns about her body as it goes through changes and

this influences her behaviour and relationships with parents, peers and siblings”. Furthermore, Geetz et al. (2016: 38) conclude that “further exploration of the impact of poor menstrual health can shed light on short- and long-term links to health, development and empowerment outcomes and provides the opportunity to support and influence girls and set them on a path to a successful and healthy life”.

The majority of the primary school teachers in the current study believed that menstruation was stigmatised and a taboo topic within their society. Menstruation as a stigma/taboo topic was explored in the study, as was the teachers’ reaction and behaviour towards educating learners about menstrual hygiene management. One of the teachers in this study reported that the Life Skills textbook for primary schools contained inadequate information about menstrual health and hygiene management. Only a few schools had adequate resources to help destigmatise menstruation within the school environment such as sex education, provision of a psychologist/counsellor and a sanatorium nurse.

The attitude of male and female teachers towards the menstruating girl was reviewed and most male teachers referred menstruating girls to a female teacher to assist them. Male teachers indicated that they felt uncomfortable assisting a menstruating girl due to embarrassment. Female teachers were in a better position to assist the girls because they showed empathy towards them and were able to gain their trust.

The transfer of accurate information and knowledge about menstrual hygiene management for boys and girls is imperative in ensuring equal education. The teachers in this study agreed that the school is the correct platform to educate boys and girls about reproductive health. One of the teachers in the study suggested that the transferring of information and knowledge about menstruation should start from Grade 5. It was discovered during this study that the topic of menstruation in some schools was not a priority as schoolgirls still had negative experiences, such as anxiety and shame, when menstruating. Therefore, it is crucial to transfer accurate knowledge and information about menstrual hygiene management to boys and girls.

Mothers are shown in various studies to be the initial primary source of information for menstruating girls. However, to avoid the transfer of inaccurate information by mothers to their daughters, it is recommended that they should be included in schools’ training programmes.

This could further improve the relationship between mothers and daughters and discourage girls from seeking assistance from peers and siblings.

It is a form of gender inequality when menstruating schoolgirls are forced to go home because of soiled uniforms or abdominal cramps. The lack of support at schools for girls could contribute to them losing days or time in class. This could be addressed if resources were available and accessible at the school, for example, a functional sick room, washroom and a practice of keeping spare clothes at the school. This would mean girls would not be forced to miss class and would provide them with an equal opportunity to be educated.

The teachers in this study experienced challenges when discussing the topic of menstrual hygiene management with boys and girls together in the classroom. The male teachers preferred to separate the boys and girls or avoided discussing the topic altogether. Therefore, girls obtained the necessary information from female teachers. Separating boys and girls at school could perpetuate the negative behaviour among boys when confronted with the topic of menstruation. In this study, female teachers found that large classes (above the suggested norms and standards per class) created uncomfortable situations for girls, and boys would giggle because of their lack of knowledge. Therefore, it is crucial to include schoolboys in the conversation of menstrual hygiene management. These conversations should start at primary school and continue in high school. Training should be provided for teachers to improve their confidence, skill and knowledge about the topic of menstrual hygiene management.

Chapter 6: Data analysis - Hardware

6.1. Introduction

The management of menstrual hygiene and the unmet needs of girls and women have been identified as important issues (Hennegan, 2020: 637). The concept of *hardware*, according to Hennegan (2020), is described as the needs of girls in the school environment to adequate, accessible, clean, safe and private facilities. This includes the availability of menstrual products, as well as ensuring that these products are accessible, affordable, comfortable and safe. This aspect is particularly important in Makana with its current and ongoing water challenges due to poor infrastructure. Water and sanitation are important issues to consider when assessing the school environment, and it is also important to take into account whether schools provide women and girls the privacy, dignity and sanitation necessary to manage their monthly menses (Nahar and Ahmed, 2006: 9). A lack of infrastructure impacts local girls who have to experience this injustice. Ramaiya et al. (2020: 9) explain that menstrual behaviour consists of two dimensions: (1) the way that menstrual health is defined, and (2) the way that hygiene management is defined. Menstrual health is the use of clean, safe and absorbent materials, while menstrual health is accessible, clean and private sanitation facilities as well as the availability of water and soap for washing. To ensure adequate menstrual hygiene management amongst girls and young women, the issues of dignity and social justice are important factors. The provision of sanitary towels and adequate infrastructure will improve school attendance among schoolgirls and menstrual hygiene management in the school environment (Crankshaw, 2020: 2). Crankshaw (2020: 2) furthermore emphasises that a more holistic approach to menstrual hygiene management is crucial for interventions.

6.2. Hardware component

6.2.1. Availability and accessibility of sanitary products

Crankshaw et al. (2020: 1, 2) explored the accessibility of modern menstrual products among high school learners in Gauteng, South Africa. They looked at the needs and challenges facing schoolgirls in managing their periods in a school environment and report that there is a current trend in some countries where modern menstrual products are supplied to menstruating schoolgirls to address issues like absenteeism caused by insufficient sanitary products. Blumer (1986: 62) argues that Mead “saw the human being as an organism having the self”. According to Blumer (1986: 66), Mead explains that the individual’s ‘self-concept’ is founded on others’

perceptions of their behaviour. A teacher could, through his/her behaviour, perpetuate low self-esteem among schoolgirls by making them believe that menstruation is embarrassing. Girls, in this situation, might ask a friend to inform the teacher when they start to menstruate in the class, rather than to speak directly to the teacher. This pressure on girls could also lead to absenteeism.

The teachers in my study revealed that there was a designated person at schools responsible for providing sanitary towels for menstruating schoolgirls. The responsible person differed at the various schools and were in some instances the secretary, a female teacher, a learner support assistant, a Head of Department, a Life Orientation teacher, or a sanatorium nurse. A Grade 6 teacher reported that at her school they “have someone who does our first aid kit and topping it up. I have my first aid kit I requested for my Grade 6 learners. I have a pack of sanitary towels for my girls. I make sure that I always have for my girls.” Although the teacher did not know who was responsible for packing the first aid kit, she always made sure that sanitary towels were accessible and available to the learners. The principal of a primary school said that “the teachers all know that there are sanitary towels in the office and (the person) would be our secretary. So, they go there, and they go on their (own) accord. They know to go there, without first going to their class teacher.” The secretary was the person responsible for providing sanitary towels to menstruating girls. The teachers and learners were aware of this arrangement. A senior schoolteacher (HOD of Life Orientation) referred the menstruating girls to “our secretary and learner support person. Everybody knows them and knows they are the one to go to for sanitary products.” Having a designated person to provide menstrual products at school is not always convenient but the arrangement allows the products to be available to menstruating girls. It is clear that class teachers, irrespective of whether they are male or female, should provide menstrual products to girls when needed.

6.2.1.1. Male teachers’ attitudes towards providing sanitary products

Blumer (1986: 6) notes that different situations influence individual experiences. However, situations and experiences highlight that teachers at different schools (public and private) are socially and culturally different and, therefore, will influence schoolgirls’, other teachers’ and staff member’s interactions with menstruation differently. Teachers as individuals live in different contexts of society and this influences their management of menstrual products and menstruation. Social perspectives involve concepts, ideas, social structure, social action, power relations and culture; these affect the behaviour and attitudes of individual actors towards

menstruation. Culture influences these perspectives because it promotes varied customs, traditions, norms, values, rules and language around issues such as menstruation, and influences interaction between actors, thus determining relationships and interactions between them (Charon, 2001: 179). Culture, therefore, becomes a principal social object for the individual point of view and the utilisation of societal norms to control the self.

In my study, male teachers at the public schools indicated that they referred menstruating girls to female teachers for sanitary towels. The Life Orientation teacher reported that “it is the female teacher” who provides the sanitary towels. This can create anxiety and embarrassment for the menstruating girl who must go to another classroom to collect the sanitary products. The culture of the society within which individuals live can have a negative influence on the individual’s experience of menstruation. Michael et al. (2020: 6) indicate that teachers in developing countries are not ready to discuss menstrual hygiene management with boys and girls because they consider it a personal matter. Males, due to different societal cultural influences, see the distribution of menstrual products as not masculine, because they view it as a female’s responsibility. This reinforces the ideology of patriarchy in my study. Menstrual hygiene management is not a priority for some males because they do not menstruate and find it difficult to empathise with females.

6.2.1.2. Female teachers as designated persons for provision of sanitary products

Female teachers, according to Hennegan et al. (2017: 8), are an important support system for menstruating girls within the school environment. A school principal (female) in my study reported that “all female staff members” were responsible for the provision of sanitary products at her school. Furthermore, she explained that “with only one staff member being responsible (it) would be a problem. If that person is not available, the child must walk from one to the other until someone can assist her.” The principal was aware of the attitudes of the male teachers regarding sanitary products. Therefore, she decided that all the female teachers should be involved in assisting the girls with sanitary products during school hours and when they go home. This demonstrates gender preferences at the school to ensure that menstrual products are available.

6.2.1.3. Provision of sanitary products for or to schools

Moon et al. (2020: 4) indicate that “menstruation and the use of menstrual products are a fundamental component of life, and both females and men should have a thorough

understanding of them. Therefore, it is necessary to examine and improve the current knowledge and perceptions of women and men related to menstruation and menstrual products.” According to Hennegan et al. (2017: 2), there is not enough research about menstrual health, and the effects of poor menstrual management have gone beyond the classroom and impact on health, dignity, psychosocial wellbeing, employment and participation in society. Poor menstrual hygiene management is under-researched and menstruating girls are affected by the non-availability and non-accessibility of menstrual products. This has been shown to be the cause of absenteeism, fear, anxiety, infection and depression. Haver et al. (2018: 374) note that research globally reports that when schoolgirls face challenges linked to menstrual hygiene management, their education is compromised.

Deviant identities are identified by Becker (1963) as being awarded to an individual before any deviant action takes place. Individuals are known to continuously adjust their own identity and behaviour to suit the label given to them by others. For the menstruating girl, the non-availability of menstrual products at home and school, could result in absenteeism. This might result in the girl being labelled as lazy by her teacher or she could be teased when she returns to school (McMahon et al., 2011: 4). Therefore, it is of paramount importance that menstrual products are available at schools to support the menstruating girl. One primary school teacher in the current study revealed that “(in) most cases the learner might not have sanitary towels, and she will not come to school”. This demonstrates menstrual poverty because most girls in rural areas are unable to afford sanitary towels and therefore stay at home which has a negative impact on their academic progress. The Kenyan girls in Mclean’s (2020: 13) study could not afford commercial sanitary products because of poverty. Although menstrual products have been made more affordable in Kenya, members of the Oyugis ethnic group are still too poor to afford commercial sanitary towels. Maclean (2020:18) explains that “unaffordable sanitary towels forces girls to construct their own protection”, which relates to Cooley’s “looking-glass self-theory”. The looking-glass self-theory can be described as a process wherein an individual sees themselves in a certain light because they believe that others perceive them that way. Cooley’s theory includes the self, symbols and society, and it could be argued that the self does not function alone but within a social situation in the society. This interaction between society and the self creates meaning. The menstruating girl in this interaction is protecting herself by using other materials, such as leaves, used clothes, old cotton fabric and newspapers, to collect the menstrual blood, (Mohammed et al., 2020: 6).

Sanitary towels are supposed to be provided by Eastern Cape Department of Basic Education to schools in Makana. Unfortunately, however, this is not a sustainable project. The schools in my study had to provide their own supply of disposal sanitary towels from school funds (not government funds) and sometimes the teachers used their own money to purchase sanitary towels. Some products were provided by Non-Profit Organisations (NGOs), but this was irregular and not sustainable. Corporate sponsorship, by companies such as Clicks, only give to schools as a once-off donation which is not a sustainable solution. The commitment of the school principals towards providing menstrual products for menstruating girls at school is a positive intervention against the fight against poor menstrual hygiene management. A Grade 6 teacher in this study said that the school “receives (products) from the department and private people”. The Life Orientation teacher at a high school explained that “sometimes it is the school (that provides the product) but in the past the department was providing us (with products). So now the school buys our own.”

Ndamase’s (2019) article in the Daily Dispatch reported on the provision of sanitary pads to poor Eastern Cape pupils by the Eastern Cape Department of Social Development. The department allocated R22.8 million to provide sanitary products to impoverished schoolgirls. A partnership between the Department of Social Development and the Department of Education and Health is aimed at strengthening the *Sanitary Dignity Programme* designed for schoolgirls from grades 4-12 in underprivileged schools within the Eastern Cape. This programme seeks to ensure the dignity of menstruating girls through the provision and accessibility of sanitary products at schools. Research conducted in South African schools show that one in three girls from rural areas is likely to be absent from school for four days each month due to a lack of access to menstrual hygiene products (Ndamase, 2019:2). These girls have self-esteem issues due to a lack of skills, while absenteeism also results in an increase in illiteracy. Girls who miss out on school because of menstruation are less employable and at risk of socio-psychological issues. A Grade 6 teacher at a rural school in my study said that she told a menstruating girl “everything about menstruation and give the girl sanitary pads and asked her if she has products at home. If not, I provide her with a pack of pads”. The teacher also reassured the girl that sanitary products were available at the school whenever she “(did) not have products at home, then you come to me.” The *Sanitary Dignity Programme for Schoolgirls in the Eastern Cape Province* is not a sustainable project because the principals in my study reported that the schools had to provide sanitary products for the girls because government support was unreliable.

According to Aksan et al. (2009: 903), Blumer's concept of symbolic interactionism is based on the change of meanings within the interpretative process. The menstruating girl feels that the school is supportive because these products are provided, available and accessible. In this way, menstrual poverty is addressed, and the meaning changed. This system at schools encourages and motivates girls to attend school more regularly. Young girls in impoverished communities experience a daily battle with menstrual poverty. There is a lack of support, understanding and empathy for young girls experiencing puberty, menarche and menstruation in these school environments, as schools are unprepared and do not have the necessary resources available to provide sufficiently for female pupils who are transitioning from childhood to womanhood. One of the principals in this study reported that the school "do(es) not have enough sanitary towels" to give to menstruating girls. This school, as an educational institution's contribution to menstrual poverty, was unable to make sanitary products available for poor girls to restore their dignity and human rights.

Hennegan (2020: 643) reports that a research study in Ghana provided sanitary pads for girls and discovered significant improvements in attendance among schoolgirls. An example of symbolic interactionism in South African was the exemption of menstrual products from value-added tax (VAT) in April 2019 and the recognition of these products as essential. Crankshaw et al. (2020: 2) report that girls and women in Eastern and Southern African (ESA) countries have started providing sanitary towels to schoolgirls and/or exempted sanitary products from tax duties. Therefore, the accessibility and availability of menstrual products has improved.

6.2.1.4. Preference of sanitary products

Menstrual products are used to collect menstrual blood when menstruating. Sommer et al. (2020: 1) indicate that the different menstrual hygiene products used by girls and women to collect blood during their period are tampons, sanitary towels, menstrual cups, cloths, paper or plant material. The use of menstrual products is aimed at preventing physical discomfort and leakage. In my review of relevant literature, I observed that schoolgirls in the global south preferred disposable or reusable sanitary towels rather than other menstrual products. Disposable sanitary towels are the preferred choice if girls are able to afford them. According to Sommer et al. (2020: 2), UNICEF prescribes that girls have to change their sanitary towels frequently in the first day or two of their period. Furthermore, Sommer and Connolly (2020: 2) suggest that females should change their sanitary towel three to four times a day during their period to promote menstrual hygiene and to prevent diseases such as urinary tract infections.

6.2.1.5. Disposable sanitary towel

As previously noted, there appears to be a greater preference for disposable sanitary towels in the Global South. This is evidenced in Moon et al.'s (2020: 14) study in Korea, as well as in a study of schoolgirls at a Gauteng high school in South Africa conducted by Crankshaw et al. (2020: 6). During the interviews with the teachers in this study, some teachers indicated that they provided disposable sanitary towels to menstruating girls when necessary. For example, a Life Orientation teacher in the current study provided disposable sanitary towels to girls when "(she) has a little accident". The teacher referred to the sudden onset of menstruation at school as a 'little accident'. Michael et al. (2020: 7) found that the students participating in their study used commercial disposable sanitary towels and changed the towels on average twice daily. The frequency in which sanitary towels were being changed was not according to Sommer et al.'s (2020) recommendations. It appears that the girls in Michael et al.'s (2020) study did not have adequate knowledge of how to manage their periods hygienically.

6.2.1.6. Reusable sanitary towel

Girls attending Indian and Ethiopian schools in Mohammed et al.'s (2020: 6) study reported that disposable sanitary towels were expensive, and that this was one of the barriers to practicing good menstrual health. In this study, impoverished girls used cloths provided by their mothers or sisters to manage their menses. Homemade, reusable sanitary towels are more affordable for poor and working-class girls. These are made from cloth and should be washed with soap and water to prevent bacteria, and dried in the sun (Yaliwal et al. 2020: 2). The reusable sanitary towel is more appropriate and comfortable than other cloth variations because it is specifically made for menstruation. In South Africa, reusable sanitary towels have not been promoted sufficiently amongst females in lower socio-economic communities. A high school principal in my study reported that reusable sanitary towels could be a barrier for poor menstruating girls, because they were unfamiliar with the product and there was also a stigma attached to their use. The girls' ignorance and lack of information on how to use and care for a reusable sanitary towel could be a reason why they refuse to use these products.

Kelland (2016) from Rhodes University confirms that the Siyahluma project group, working to change the conversation surrounding menstruation, was established in 2014. Rhodes University conducted a study in partnership with schools in the Eastern Cape to identify how menstrual hygiene management challenges schoolgirls' experiences of menstruation. In 2014 a group of five foster mothers from Grahamstown Child Welfare Services approached the

research team with an idea to produce reusable sanitary products. The research team agreed to form a partnership with the group because they found that there were girls who could not afford disposable sanitary products. This community project therefore empowered the women of Grahamstown through a social enterprise initiative (Kelland, 2016: 2-3).

The Eastern Cape Herald (2020: 1) recently reported on a project in Harare, Zimbabwe, that promoted reusable sanitary towels to improve menstrual hygiene. The project involved providing the product free of charge to girls and women from poor communities who could not afford commercial sanitary products. The article indicated that challenges in assessing proper menstrual hygiene management could impact on women and girls with regard to their social status, restriction of movement and participation in daily activities. The Zimbabwean project was aimed at empowering women to become economically independent. A similar initiative, if implemented locally, could also empower women and girls in South Africa.

6.2.1.7. Commodification of sanitary products

In her study, Patterson (2013: 32-35) discussed the menstrual body and applied Marx's (1967) theory of capitalism and the analysis of commodities to her data analysis. The definition of a commodity is any product produced for the "exchange or sale" and that "commodification is the process of transforming objects, ideas and even people's labour into exchange values". Marx believed that the key principle behind commodification was capitalism which resulted in the drive for profit or "the accumulation of capital" (Paterson, 2013: 32). According to Paterson's (2013: 33) study, the menstrual body "undergoes the commodification process as the feminine hygiene industry seeks to capitalise on women's menstrual cycles by constructing" basic and new needs for menstrual commodities. Menstrual commodities are linked to personal and feminine hygiene associated with menstrual products where menstrual blood is socially constructed as unclean and dirty. In 1896 the Johnson and Johnson 35 company first attempted to make a disposable napkin for menstrual use, called "Lister's Towels", from the "germ theory" of Dr Joseph Lister. Only middle- and upper-class women could afford this towel. This was the very first reusable menstrual product (Patterson, 2013: 35).

Furthermore, Patterson (2013: 35) explains in her study that women sold their labour power to obtain a salary that, in turn, enabled them to purchase commodities. For example, sanitary towels are commercialised and sold to girls and women. Unfortunately, due to the cost, the

buying of sanitary products is limited to those who can afford them. Shah's (2019) article in the BBC News refers to menstruating girls and women in Maryland (United Kingdom) as experiencing "*pad shame*". She states that, at her home, sanitary towels are kept away from the family so that they are not exposed to them. She acknowledges that she still experiences feelings of shame when she menstruates monthly. Different brands of sanitary products, such as Always, Stay Free and Comfort, are available in shops. The prices of the different brands are not the same and girls who cannot afford commercial sanitary products may experience "period poverty".

6.2.1.8. Period poverty

The term *period poverty* describes the barriers to accessing menstrual products. Examples of these barriers include finances, sociocultural factors and political factors (Medina-Perucha et al., 2020: 2). Rietzler (1943: 459) argues that it is difficult for the needy to be grateful for help and gifts because they are vulnerable and embarrassed about their neediness. Schoolgirls who cannot afford safe menstrual products often manage their menstruation by using unhygienic and unsuitable products, such as old rags, newspapers and socks (Sommer et al., 2020: 2). The use of disposable sanitary products is costly and therefore has sustainability implications for families and schools (Shannon et al., 2020: 15). Sommer et al. (2019: 17) confirm that a study done in Kenya showed that girls engaged in sexual transactions to acquire sanitary towels. A teacher at a rural primary school in the current study said that "(she) will give them (the girls) a packet of pads and (inform them of how) to take care of cleanliness". Medina-Perucha et al. (2020: 2) highlight in their study that the accessibility of menstrual products is a component of menstrual health. They also report that, in countries such as Uganda and the United Kingdom, girls and women also experience *period poverty*. One of the primary schools participating in the current study is in a rural area where the unemployment rate is high. The area is mainly an agriculture farming community with no public transport to Grahamstown. Finances could be a barrier to buying affordable menstrual products for girls at this school. One of the primary schools in this study is dependent on the Eastern Cape Department of Education to provide menstrual products to them regularly. One teacher at a rural school said that "as soon as we receive sanitary towels, I inform the principal that we got stock from the department or from wherever. Then all teachers are informed that there is stock, for when and if there is a learner in need."

6.2.3. Support systems

6.2.3.1. Lack of facilities

Often the physical environment of learners is challenged by issues such as a lack of water, sanitation, waste disposal facilities and sick bays (Shannon et al., 2020: 14). The physical environment relates to the availability and accessibility of infrastructure and facilities. Schmitt (2018: 1) confirms that the most common forms of gender discrimination for girls and women globally is the lack of access to a private, safe, comfortable and convenient toilet. Macleod and Glovers' (2016) study highlights the lack of information regarding Water, Sanitation, and Hygiene (WASH) in the Life Orientation curriculum in South Africa. This suggests that no strategies are in place to address the lack of water, inadequate sanitation and lack of hygiene in some of the schools in the current study. Regardless of the connections between water, sanitation and hygiene, policymakers have failed to fully acknowledge the link between the physical environment and menstrual hygiene management (Chin, 2014: 2).

6.2.3.1.1. Sanitation facilities: primary school

Safe, clean, private and lockable sanitation facilities at schools are imperative for menstruating girls. In the current study, an investigative observation was conducted at the participating primary and high schools. Various challenges were discovered and observed at the primary schools, including inadequate toilet facilities, missing toilet seats, missing doors and no locks on doors. One of the primary school principals in this study said "we (the school) do not have enough toilets for the number of children ...". I observed that at this school there were 12 toilets and four handbasins available for the schoolgirls. One toilet did not have a cistern lid, two toilets had seats missing, seven toilets had no doors and only two of the toilet doors could be locked. In addition, there were three toilets with doors but without locks on the doors. There was no toilet paper, paper towels or hand sanitiser at this school. The sanitation block was dark and the ventilation was poor. Washfunders blog reports that the World Health Organisation (WHO, 2009) recommends that one toilet be provided for every 25 girls (Fonesca, 2012). This school had an enrolment of 401 girls in 2020. According to World Health Organisation norms and standards, the number of toilets for the girls at the school was inadequate. The study of Sommer et al. (2019: 14) reports that the Malagasy schoolgirls stated that their sanitation facilities were missing locks, they had safety and privacy concerns, and there were not enough toilets. The menstruating girl should have the opportunity to use safe, private and hygienic

toilet facilities when at school. By creating a safe and private environment, toilet facilities could improve the school-going experiences of menstruating girls. See Appendix 5.

During my observational research at the rural primary school, I found that the sanitation facilities were situated outside the main school building. The building appeared very old. Five toilets were available, of which only three could be utilised as the other two toilets were locked, with wire and a lock, for maintenance reasons. There was one handwash basin. There was also no toilet paper or hand towel available for the girls, but there was one hand sanitiser. The toilet doors were not lockable and were almost falling off the door frames. During my investigation, I observed that the toilets and handwash basin were not in good condition and presented safety, privacy and hygiene challenges. According to a teacher at this particular school, “when it comes to toilets, we have a problem. The system is old as it is an old school. We do try and keep them (toilets) clean”. Adolescent girls, when menstruating, need to have safe and private sanitation facilities at their schools to ensure that they are able to continue their education. Although the number of toilets is sufficient for the 47 girls enrolled at the school in 2020, the toilets were in a poor condition. A study in Bangladesh by Alam et al. (2016: 1) found that adolescent girls in low-income and middle-income countries have inadequate facilities and support to manage menstruation and hygiene at schools. Poor menstrual hygiene management has a negative impact on the education of schoolgirls due to absenteeism and poor school performance. Tsegaye et al. (2011: 1) report that global studies have shown that girls who attend schools where there is a lack of water supply and inadequate sanitation facilities prefer to stay at home when menstruating. Hygiene education largely excludes menstrual hygiene, and even sanitation programmes, such as water, sanitation and hygiene (WASH), ignore menstrual hygiene management in the design and building of toilets. Most of the schools in Bangladesh had non-functioning toilets with no accountability for the unique needs of girls’ menstrual hygiene management (Nahar and Mohammed, 2006: 2). According to Schmitt et al. (2018: 2), it is important, when designing female-friendly toilets, to consider the significance of cultural beliefs to ensure the toilet facilities are acceptable and used. See Appendix 5.

One primary school principal in the current study reported that her school was fortunate to have “enough toilets (for the girls)”. The school had 397 girls enrolled for 2020. I observed that there were 22 water-borne toilets and seven handwash basins available, with sufficient toilet paper, lockable doors and good ventilation, while there was supply of hand soap and paper towels. At another primary school, the principal said “(the school is) very fortunate to have

ample facilities". At the time of the study (2020), 116 girls were enrolled at the school. I observed the sanitation facilities - 10 waterborne toilets and 10 handbasins were available for the girls. The toilet facilities were clean and private with lockable doors, enough toilet paper, paper towels, handwash soap or hand sanitiser. These schoolgirls were very privileged to attend a school with good resources because they were not likely to experience disruptions to their education when menstruating. Kuhlmann (2017: 374) notes in her study that girls' and women's ability to manage their periods hygienically, without interruption of school days or daily activities, are taken for granted in rich countries. The access to menstrual hygienic products in these countries is easily obtained and affordable.

6.2.3.1.2. Sanitation facilities: high school

Menstruating schoolgirls at the high schools in this study experienced different challenges. One high school principal was asked if the school had enough toilets for the girls and her response was "no". The school enrolled 503 girls for 2020, and only 14 waterborne toilets and seven handbasins were available. This is insufficient, according to norms and standards of the World Health Organisation. During my observation, two of the toilets' cisterns did not have covers, eight toilets had no toilet seats, 12 toilet seats did not have lids and there was one broken door. Only half the toilets (seven) had doors that could be locked. No toilet paper or hand towels were available in the toilets, but liquid soap or soap bars were available. The toilets were divided among the senior and junior girls at the school. Some of the window handles to close the window was missing in the senior sanitation block and it was dark with poor ventilation but appeared clean. Schmitt et al.'s (2018: 3) study in a low-cost rural community shows that girls and women need adequate sanitation more than males because females menstruate and frequently have to change their menstrual products. See Appendix 7.

Another high school in this current study benefited from a Rotary project (NGO) where the sanitation facilities were renovated and new toilets were provided. The principal of this school was delighted about the new toilets because the old toilets were not functional. The school enrolled 491 girls in 2020 and had 29 waterborne toilets and 24 hand basins. The toilets were safe, private, hygienic, and had good light and ventilation. However, there was no toilet paper or paper towels provided. During my visit to the school, the builders were still busy with the renovations to the toilet facilities. It appears that the principal of the school sought assistance outside the Eastern Cape Department of Basic Education to improve the sanitation facilities of the school. See Appendix 6.

Two high schools in this study had sufficient resources for the schoolgirls. One high school principal in this study said that “(the school is) privileged to have the resources in place”. At this school 433 girls were enrolled for 2020. The school had 23 waterborne toilets and 22 handbasins available for the girls, however four of the toilets had no lids. The sanitation facilities were clean, safe, private, and had good light and ventilation. All the toilets were provided with toilet paper and hand towels and hand sanitiser. This was a very privileged school (financially strong) and was able to provide enough resources for the girls in terms of sanitation facilities. I observed that the handwash basins had marble tops. At the second school, there were 355 learners enrolled for 2020. The school had 14 waterborne toilets and nine handwash basins. One Life Orientation teacher said the school does “not have that problem” (i.e. not enough toilet facilities for girls). Morgan et al. (2017: 1) confirms in her study that adequate water, sanitation and hygiene are crucial in a school environment because learners spend most of their day at school. See Appendices 8 and 9.

6.2.3.2. Washing of hands

According to Guya et al. (2014: 38) and Davis et al. (2018: 29), the lack of soap and handwash facilities are crucial determinants for practicing proper hygiene management at school and improving school attendance. During my observation research at the primary and high schools in this study, one of the primary schools had no soap or hand sanitiser in the sanitation block for girls. Loughnan (2016: 239) highlights that the United Nations (2015) Development of the Sustainable Development Goal 6 is to ensure access to water, sanitation and hygiene globally for all. Furthermore, handwashing intervention promotes hygiene and prevents infection from diseases.

Other challenges that some schools in my study experienced was that hand towels were not available for the girls to dry their hands. Morgan et al. (2017:957) report that in Ethiopia the non-availability of washing materials at schools contributed to poor hygiene practices among learners. The World Health Organisation promotes water and soap for the washing of hands. The drying of hands is also crucial for hygienic handwashing.

6.2.3.3. Water facilities

Adequate water supply is a challenge in the Makana district due to old infrastructure, climate change and drought. According to Morgan et al.’s (2017: 1) study, poor water supply could contribute to poor educational outcomes as it has severe implications for the menstruating girl

at school. A rural primary school teacher in this study stated that her school “(does not) have water and (that) water is not clean. We do have problems with water (and) so it is difficult for learners to use the toilets.” The principal from this school also indicated the following:

The school experiences water outages, and the quality of water (poor) and water restrictions. We have to make sure that (the school) has water in five litre bottles that we use for ablution purposes. Water availability is always a concern. At some point you have to close the school.

The principal furthermore explained that the non-availability of water had a negative impact on the learners’ education. I observed that the school had two water tanks (2500 litres each) but the one was empty and the other one only one-quarter full. According to the principal, the drought in the area had depleted the supply in the water tanks. This school is dependent on the Makana Local Municipality to provide clean water. I was informed during my observation at the school that the staff and learners were scared to drink the water because of its poor quality. Therefore, the school was reliant on rainwater in the tank for drinking purposes. It did not acknowledge the need for clean water in the bathrooms. According to Ellis et al. (2016: 3), Philippian girls reported that the availability of water in the toilets have a different effect on learners at the school. When Muslim girls did not have any access to water at school, they would urinate in the field outside the school property and go home to manage their menstruation. Muslim girls have cultural beliefs and rituals when menstruating and when water is not available in the toilet, it affects their menstrual hygiene management. See Appendix 5.

Two schools in the current study experienced regular water outages and were sponsored by Non-Government Organisations (NGOs) such as Rotary, Gift of the Givers and a private school. One of the primary school principals shared that “water is a problem and can become a health hazard. At one point, children had to be asked to stay at home because there was...no water available at school. Outside organisations such as Rotary and a (private school) have helped in the supply of water tanks and pumps for (the) supply of water to the ablution blocks. It is connected to the main water supply from the (local) municipality to supply water at all times.” In my observation of this school, I noted eight water tanks. Four 10 000-litre tanks and three 5000-litre tanks were connected to the main water supply and one 5000-litre water tank was dependent on rain.

A different school in this study benefited from the Grahamstown Rotary Global Drought Project and Gift of the Givers. The Makana district was declared a drought disaster area in 2019. During my in-depth interview with this specific high school's female principal, she described the conditions of the toilets as non-functioning and lacking in the facilities that the girls needed. However, she noted that renovations were due to be undertaken by the Grahamstown Rotary Project. By the time I observed the toilet facilities, the renovations were underway. Gift of the Givers had also drilled a borehole successfully on the school property to provide water for the local community surrounding the school, as well as for rural areas and the high school. Grahamstown Rotary provided the school with four 10 000-litre and three 5000-litre water tanks connected to the school's main water supply. There were also fourteen 5000-litre water tanks using pumped borehole water. I observed a total of 18 water tanks on the school's property. See Appendix 6.

In the current study a high school in a low-income community struggled with the availability of water when water outages occurred in the area. One of the Life Orientation teachers acknowledged the following:

The (school) has a water problem. We have two (water) tanks (but) they are not connected. We have plastic bottles ...fill(ed) with water... (That) is how we take care of water outages. But (it) is not enough. I am not sure how they (learners) wash their hands if there is no water.

During my observation only two 2500-litre water tanks were noted, and they were not connected to the main water supply. As a contingency plan to deal with the non-availability of water at the school, five 5-litre bottles were filled with water and stored in the senior girls' sanitation block. The bottled water was used for ablution purposes. See Appendix 6. The remainder of the schools in this study had contingency plans in place for when water outages occurred. These schools were fortunate enough to have water tanks and boreholes to ensure the availability of water. At a privileged high school, I observed that seven 10 000-litre water tanks had been installed and connected to the main water supply and borehole. One Life Orientation teacher in this study said that despite the water challenges in Grahamstown, the school environment was self-sufficient.

6.2.3.4. Waste disposal system

One of the components of menstrual hygiene management, as defined by the United Nations, is the disposal of used sanitary products (Kuhlmann, 2017: 357). According to Murye et al. (2017: 2), in Swaziland, sanitation and hygiene facilities totally ignored the needs of women and girls in terms of menstrual hygiene management. Murye et al. (2017) furthermore emphasises that proper waste disposal facilities should be put in place to prevent the improper disposal of menstrual products through the sanitation system. The disposal of menstrual material in toilets could lead to blockages and result in toilets overflowing.

A few of the schools in this study did not have a waste management system. The schoolgirls disposed their used sanitary towels in a garbage bin, a small bin or a dustbin provided in the toilets. Murye et al. (2017: 3) confirm that women and girls generally dispose of their menstrual products in rubbish bins or toilets or burn the used products. The method of waste disposal of used menstrual products is also dependent on the location of the girl. For example, at home girls throw these products into refuse bins or flush them down the toilet. At school, they might use bins not necessarily designated for sanitary towels disposal. One primary school teacher in this study explained that “(the teachers) teach the learners not to put used sanitary products in the toilet and explain why they should wrap it in toilet paper and throw it in the dustbin”. A different school in this study provided small stainless-steel bins in each toilet. Unfortunately, I noted during my observation that one school had no waste disposal system in the girls’ sanitation block. At this school it is likely that girls flushed their used menstrual products down the toilet or disposed of them in the refuse bins. See Appendix 5. Guya et al. (2014: 28) discuss Schoemaker’s (2008) report, which indicates that blocked sewage systems, the filling up of pit toilets and pollution of the environment is a common occurrence because of the improper disposal of menstrual products.

The rest of the schools in the current study used private service providers to provide waste disposal bins, to undertake monthly collections and provide clean replacement bins. The Eastern Cape Department of Basic Education is not responsible for providing waste disposal bins; therefore this is the individual school’s responsibility. One high school principal said that “the school organised a supplier to come in with sanitary bins who has a regular programme removing and cleaning those bins”. One Life Orientation teacher commented that there were waste disposal systems in place and a waste management company “comes and cleans and

replaces bins” in all the toilets. Guya et al. (2014: 28) note that the United International Children Fund (UNICEF, 2010) emphasises the importance of school toilets and how they should be designed and built for females. The design of the sanitation facilities should prioritise the needs of menstruating girls and include features such as safety, privacy, space, wash facilities and facilities for the proper disposal of used menstrual products. See Appendices 8 and 9.

The disposal of used sanitary products is essential, according to Babbar et al. (2020: 3), because of the Sustainable Development Goal (SDG) 6, which specifically highlights the need for “adequate and equitable sanitation for all including the sanitation facility and adequate treatment and disposal of human excreta and waste”. Sommer et al. (2016: 240) agree that disposal of sanitary products could compromise the sustainability of all types of sanitation. It could be argued that a lack of waste disposal systems at schools impacts the environment and is a threat to toilet- and sanitation-systems. Unfortunately, women and girls prefer using commercial and non-biodegradable products when they menstruate. These products could cause blocked toilets and pollute the environment (MacRae et al., 2019: 18; Sommer et al., 2016: 240). One high school principal in this study explained that “as far as waste disposal of sanitary products, we (the school) only have waste bins. At this point we do not have any waste disposal system (for sanitary products) at the school.” MacRae et al. (2019: 18) suggest that the focus should be on providing a safe, private and separate disposal service for women, where the material can be disposed of properly. Schmitt et al. (2018: 4) recommend that it is crucial to include cultural appropriate disposal options, central to the design of female-friendly toilets. Health education and information about menstrual hygiene management is important, especially regarding the disposal of used sanitary products to ensure functional sanitation facilities.

6.2.3.5. Washrooms

According to the study of Mohammed et al. (2020: 2), Sommer and Connolly suggest that the area around the vagina should be washed with soap and water approximately twice a day during menstruation. The regular washing of the genitals could reduce the infection rate of new cases of reproductive tract infection (Mohammed et al., 2020: 7). It is therefore crucial that water and adequate sanitation facilities should be available to learners, and that washrooms at schools should be safe, clean and private. This is an essential need for women and girls and enables them to manage their menstruation with dignity and with no interruption to their education.

The majority of the primary and high schools during my observation visits had no washrooms or showers. One high school principal in the current study said that the lack of functional facilities impacted on girls' privacy. Michael et al. (2020: 2) state that menstrual hygiene management information is important to sustain proper hygiene for girls. Hennegan (2020: 642) agrees that it is necessary for females to feel safe and to have a private facility where they can change menstrual products and wash their bodies with soap and water. At times, facilities at schools are inadequate for the learners' physical and psychological needs. One high school principal in this study noted that when a girl was menstruating, "she can go home if she wants to. I have on occasion taken learners home." The reason for this is because the school did not have the resources and facilities to support the menstruating girl.

In Guya et al.'s (2014: 37) study in Tanzania, girls were aware of the importance of washing the genital area before changing the sanitary product, but no soap was available in the toilets. These girls believed that nobody cared about the conditions of their toilets because there were no doors while water and soap were also not available. The Malagasy girls in Sommer et al.'s (2019: 14) study described their toilets as too small to change their menstrual products and indicated that a lack of water prevented them from washing themselves.

One of the high schools in the current study was equipped with adequate resources and facilities for menstruating girls. In one of the toilet facilities a shower was available for the girls. The design and layout sanitation facility were an example of how the needs of the menstruating schoolgirl could be addressed. A Life Orientation teacher at this school acknowledged that "... it is a privilege (to) work in a (private) school.... systems are in place". The school has a support system in place for menstruating schoolgirls. See Appendix 9.

6.2.3.6. Sick room or sanitorium

The educators were questioned about the availability of sick rooms or sanatoriums for menstruation-related ailments. The majority of schools in the current study did not have sick rooms available for learners or had non-functional sick rooms. One high school principal in this study explained that the school previously had a sanitorium, but the girls had misused it and were "using it as a bunking space". After many warnings, the school decided to close the sanitorium. According to the principal, when a girl was not feeling well, the teacher called the parents to fetch her. I observed that the girls would wait in the foyer of the school for their parents. MacRea's (2019: 18) research in India revealed that girls often experience menstrual

pain and discomfort which affects their movement ability. These girls reported that they were unable to manage their pain effectively, resulting in negative emotions. See Appendix 8.

One of the high schools in this study had no sick room and only a stretcher in the staff room was available. The principal of this school suggested that a sick room would be an asset to the school, but the issue would be to find a suitable space at the school. She further explained that “the clinic is around the corner and we work closely with them. Our learners go there (clinic) when it is serious. Either in the mornings or afternoons. The stretcher is very handy (and) it has made a huge difference. A sick room will be (a) good idea if there (is) somebody that can watch over it.” It appears that the principal had a contingency plan in place to deal with the absence of a sick room. However, the stretcher did not provide any comfort and privacy for the learner because it was situated in the staff room. Additionally, the menstruating girl, attending the local clinic for minor ailments, would lose time during the school day. Absenteeism from school for a short period could impact negatively on girls’ education. See Appendix 6.

A few schools had no functional sick rooms and designated sick rooms were used for other purposes. At one high school, the sick room was used for administration purposes, while the toilet was used as a storeroom for redundant office furniture. I observed that a storeroom was converted into a learner support office and was also used as a sick room for learners, but it had no privacy, toilet or handbasin facilities - only a bed was available. One Life Orientation teacher agreed that a sick room was necessary and if there was a sick room available, “they (the girls) can get the sanitary pads from there”. This would also allow the girls to wash themselves in privacy with the onset of their period and to “get a referral letter to go to the clinic”. Another teacher from this school disagreed and said that the “...sick room will not really assist. You can only ask them to lie or sit down and rest until the pain goes away. Unless we have a registered nurse at (the) school, a sick room can be utilised.” The lack of human resources, finance and facilities at the school impacted on the menstrual hygiene management of girls and their needs. See Appendix 7.

During my visit to one of the primary schools, I observed that the sick room had no ventilation, and only had one bed and six hand basins available. Unfortunately, the sick room was not functional and the learners were referred to the local clinic if they were experiencing pain. The principal of this school expressed that “(a sick room) will be nice, then the learners do not need to walk to the clinic or be absent from the school. It will result in less teaching time going to

waste by going to the clinic. A functional sick bay and a proper person to monitor it, would impact positively on the education of the learners." Seydou et al. (2020: 291) discuss the link of absenteeism due to dysmenorrhea of schoolgirls in the Niger area. Their reasons for the absenteeism were because the school had no sick room where the girls could rest and no pain medication was available. Yaliwal et al. (2020: 2) also report that minor ailments are common during menstruation. Abdominal cramps or pain, lack of concentration and nausea are general complaints. See Appendix 5.

One of the primary schools in this study had a sick room but it was not properly functional because the room was shared with a Learner Support Officer. This primary school's principal said that "the room is also used by the Learner Support Officer. I do not know what we would need in the sick bay to assist menstruating girls. We contact the parents and while the child waits for the parents, they can lie on the bed in the sick bay." I observed that the room had filing cabinets, cleaning equipment and the bed was occupied with other things. It appeared that the sick room was not being used for its intended purpose. A menstruating girl using the 'sick room' would have no privacy when lying on the bed. This school principal, and others in my study, need guidelines or a workshop on how to make a sick room functional without impacting on the menstruating girls' or other learners' education. See Appendix 5.

The information gleaned in this study regarding the lack of support in the majority of schools shows that girls are more vulnerable than boys and their psychological needs are not being met. Sick rooms are usually provided as a place for counselling or conservative treatments such as the provision of a hot water bottle and a place to rest until the parents can fetch their daughters. Schooler et al. (2005) provide information on candidates from a Midwestern University in the United States of America. This research involved menstrual shame, body shame, and how it relates to sexual decision-making. Body shame involves both a negative evaluation of one's body as well as an emotional component. According to Blumer's symbolic interactionist interpretation, body shame is shaped through interaction with others and this gives meaning to the girls' experiences and vulnerability during menstruation, because of the secrecy surrounding menstruation and the boys' responses to girls when they are menstruating. Therefore, shame is intensified when there are inadequate facilities available at school for the sudden onset of menstruation.

One of the schools in this study had a functional sanatorium on the school premises. The Life Orientation teacher at this school noted that they “do have (their) own health facility, which provides and dispenses medicine. We (also) have a doctor daily (and) have two nursing sisters...”. Another Life Orientation teacher from this school reported that “there is a counselling psychologist available to talk to”. The school is fortunate to have resources that assist all learners at the school, including menstruating schoolgirls. The doctor and nursing sisters were available for 24 hours a day to monitor the learners because it is also a boarding school. The boys and girls could continue their education without interruption except when the condition of the learner was serious. The support system for psychological and psycho-social needs of the menstruating girl was in place at this school. See Appendix 9.

6.2.3.7. Community participation or involvement

Participatory-centred development focuses on the involvement of people and their communities in the process of development (Korten, 1990: 2018). It similarly focuses on the significance of advancing and empowering people in the development process, especially women. Sustainability and participatory development involve people in the processes of decision-making and allows them to have control over their resources to sustain them for future generations. One Life Orientation teacher at a private school in this study said that learners of the school were encouraged to “...reach out. We (the school) have had an initiative in the last two years, headed by our past head girls, who would collect sanitary towels to donate to the (under privileged) communities. In that process we do educate the (learners) about community involvement at school.” Another teacher from this school reported that the “(the girls would initiate a sanitary) drive as a project at school. (They) would buy sanitary products and even asked the boys to buy pads and tampons... Both sexes are involved in this initiative.”

A few schools in this current study could not afford to buy sanitary products and were dependent on the Eastern Cape Basic Department of Education and donors. The schools were located in low socio-economic communities, where sanitary products were not a priority or affordable for the girls. Krusz (2019: 6), Australian study on indigenous girls suggests that community-driven projects could help improve the wellbeing and health of menstruating girls and their community by showing support for future generations of women and girls.

6.2.5 Legislation, policy and human rights

6.2.5.1. Constitution of South Africa, 1996.

The South African Bill of Rights (The Constitution of South Africa 1996, Chapter Two) emphasises that the rights of South Africans must be enshrined, and states the democratic values of the people's dignity, equality, and freedom. Section 29 (1) (a) further states that every child has the right to primary education, provided through reasonable measures and made progressively available and accessible. Furthermore, the Constitution also affirms equality for all citizens, including learners. Section 9(3) and 9(4) of the Constitution (1996) states that "no person (including learners) may be directly or indirectly discriminated against by race, gender, ethnic or social background." Section 10 of the Constitution (1996) states that all humans have inherent dignity and the right to their dignity should be protected and respected. Human rights are adversely affected when schoolgirls cannot manage their menstruation with dignity. The lack of sanitary waste disposal bins, washing facilities, handwash, hand towels, and toilet paper impact on girls' dignity, as well as their menstrual hygiene management at school. According to Loughnan et al. (2016: 229), Dr Jyoti Sanghera from the Office of the High Commissioner for Human Rights states that "stigma around menstruation and menstrual hygiene is a violation of several human rights". These human rights violations are the right to human dignity, non-discrimination, equality, bodily integrity, health, privacy and freedom from inferior and inhumane treatment from violence and abuse.

6.2.5.2. National Health Promotion Policy

The National Health Promotion Policy defines health promotion as including various categories of concepts linked to "health education; communication for social and behavioural change; information, education and communication (IEC); social marketing; advocacy; and social and community mobilisation" (Department of Health, 2014: 6). This policy document acknowledges that health promotion does not focus on impacting individual behavioural outcomes, but community norms and attitudes. It also aims to develop an enabling environment by including health promotion into all policies, strategies, and programmes to cultivate a culture for people to improve and sustain their health by prioritising health at the core of the development agenda.

Thus, health promotion in South Africa has changed focus from health education to a more comprehensive programme that includes education, training, research, legislation, policy

coordination and community development (Department of Health, 2014: 7). Health promotion furthermore aims to establish and maintain safe and healthy environments such as clean water, adequate sanitation and personal hygiene practices such as handwashing (Department of Health, 2014: 20). During my research, I discovered that there was a lack of health promotion at schools despite the policy being available. Health promotion could assist with MHM at schools and include different partnerships to address the community's norms and values regarding menstruation. Menstrual hygiene management can also contribute to the achievement of sustainable development goals through health promotion, such as quality education, gender equality, clean water and sanitation, and environmental sustainability. This will help move the Eastern Cape forward towards development.

6.2.5.3. South African Schools Act 84 of 1996

The South African Schools Act refers to issues of learner attendance and identifying learners at risk (Section 3(1)). The South African Schools Act further states that if a learner is absent from school, the Head of the Department, or the principal, may investigate the circumstances of the learner's absence from school and take necessary measures to redress the situation (Section 5 (a) (b)). Nanda et al's (2016) study in Zambia discovered that some girls would leave school early or at break time, sometimes under their teachers' instructions, if their clothes became soiled due to menstruation. One Life Orientation teacher in this study said that she gave girls permission to go home and come back to school if their uniform was soiled due to menstruation. The teacher's decision to send the girls home could indicate inadequate resources and facilities, such as washrooms and spare uniforms for girls, at the school.

6.3. Conclusion

This chapter focussed on investigating the support structures such as water, sanitation, waste disposal facilities and the availability of sick bays at schools. Various themes emerged, which allowed meaning and interpretation of menstrual hygiene management and correlations with the goals of the current study through investigative research at the participating schools. The concept of *hardware*, according to Hennegan (2020: 639), describes the needs of girls within the school environment, including adequate, accessible, clean, safe and private facilities, as well as the availability of menstrual products. The current non-availability of water due to poor infrastructure in Makana is a challenge for the town. Water and sanitation are key issues to consider when assessing the school environment as well as whether it can offer the necessary privacy, dignity and sanitation for women and girls to manage their monthly menses (Nahar &

Ahmed, 2006: 9). This lack of infrastructure, facilities and resources could influence menstruating girls who have had to experience this injustice.

The accessibility and availability of menstrual products showed that most schools in this study expected a designated staff member to provide sanitary products to menstruating girls when necessary. Most male educators in the current study were not comfortable providing sanitary towels to the girls because they felt the girls would be embarrassed. At these schools, females were designated to keep and provide sanitary products. The provision of sanitary products to schools by the Eastern Cape Department of Basic Education proved not to be sustainable. A few schools made use of their own school funds to buy sanitary products to ensure availability for their menstruating girls.

The results of this study also showed that there was a preference among girls for disposable sanitary products over reusable sanitary products. It was clear that the reusable sanitary product was not popular among schoolgirls because the product was seldom promoted, and not enough information was provided to the girls regarding reusable products. Even girls from poverty-stricken areas would rather be uncomfortable and not use the reusable sanitary product if disposable sanitary products were not available. Disposable sanitary products were, however, not affordable for many girls from these areas and the alternative could be a reusable product to avoid period poverty.

Support facilities are crucial to manage menstruation hygienically at school for girls. The lack of water and sanitation facilities at schools is a contributing factor to the inequality of education for menstruating girls. Psychological and socio-cultural factors affect menstruating girls within the school environment. Most schools in this study had water tanks because of the water scarcity in the area. However, in some schools the water tanks were not connected to the main water system at the school. The availability of water remains a challenge in the Makana district. Sanitation facilities in this study were not in accordance with the norms and standards of the World Health Organisation and the menstrual hygiene definition, which makes the menstruating girl very vulnerable and at risk at school.

Hand washing is very important to prevent the spreading of infectious disease. At certain schools, soap or hand towels were not available at the handwash basins. Hand sanitiser was available in the toilet facilities. The toilet facilities were not female-friendly because the

washrooms did not provide facilities for girls to wash and change their sanitary towels. Girls would therefore ask for permission to go home when they soiled their uniforms or needed to change their sanitary products. This loss of school time interrupted their education and could result in absenteeism.

Waste disposal systems are an important part of menstrual hygiene management. The improper waste disposal methods of sanitary products could damage sanitary systems and pollute the environment. A few schools in this study could not afford private waste disposal companies to provide waste disposal bins for the female toilets. Learners used waste bins in the toilet or a communal waste bin. The collection of the waste bins was included in the collection of the garbage by the local municipality. Other schools could afford private waste disposal companies to provide menstrual waste bins and collect or replace bins regularly.

The provision of a sick room was not a priority at most schools in this study. Sick rooms were shared with the learner support officer or used as a secretary's office. Learners were referred to the local clinic in the area if they experienced pain and discomfort during menstruation. According to educators interviewed there is a policy from the Department of Basic Education forbidding them to administer or provide medication to learners. Unfortunately, none of the schools in this research could produce a copy of the policy.

Legislation, policy and regulations are provided to guide and give direction to school principals on how best to support and address the needs of menstruating girls. The menstruating girl's journey from childhood to womanhood should be dignified, supportive and comfortable in the school environment.

Chapter 7: Conclusion

Menstruation should be viewed as a celebration in the family as the onset of menarche symbolises the transition from childhood towards womanhood. However, the experience of these normal physiological processes by girls reaching puberty is often negative. Menstrual hygiene management, according to Sommer (2015: 1), is considered to be a globally neglected public health issue because of socio-cultural and religious factors influencing the menstruating girl. In Africa, the topic of menstruation is not discussed openly within the community and families, and therefore the secrecy and taboo surrounding menstrual hygiene management continues (Ramathuba, 2015: 1-2). Negative attitudes and behaviours towards girls who experience menstruation could have adverse psychological, emotional and social results. The shame, anxiety and embarrassment that follows is increased because of the inadequate preparation for menarche. The lack of knowledge and information about menstrual hygiene management has consequences for the girls, such as stigma, bullying, low self-esteem and low confidence. The support systems such as infrastructure and availability of menstrual products for girls in the school environment is crucial for the hygiene management of menstruation. Availability and accessibility of water, sanitation, washrooms, sick bays and menstrual products could make a difference to how girls manage menstruation at school and improve menstrual hygiene management.

The findings of this study show that menstrual hygiene management at schools should be a priority. The menstruating girls experienced various challenges at the different participating schools and attention should be given to these issues. The selected participants displayed different perceptions of, meaning construction and interpretation of, and knowledge about menstruation. Some of the male educators experienced embarrassment and shame due to the stigma surrounding the topic when expected to discuss menstruation with learners. Menstruation was only discussed in the Life Skills or Life Orientation classes with the learners. The Life Skills textbook for the primary schools had inadequate information about menstruation and the physiological processes associated with it. The female educators were the primary source of information regarding menstruation and assisted girls with sudden onset of menstruation at school. The schools had to buy their own sanitary products to make it available and accessible to the girls. The infrastructure for water and sanitation at some of the schools was inadequate and waste disposal bins were not available. Some public schools did not have the financial resources to hire waste disposal bins from a private company and the government

did not supply them. In some instances, sick rooms were not available nor functional and girls were referred to the local primary health clinics or doctors when necessary.

7.1. Recommendations for further research and for schools in the Eastern Cape

Based on the current research I believe that the following recommendations will address the menstruation and menstrual hygiene management needs in the Eastern Cape Public schools:

- Address the inadequate information regarding menstruation at primary schools especially in the Life Skills textbooks.
- Petition policy at government level to bring it into line with our constitution and the sustainable development goals.
- Include a comprehensive information chapter on menstruation and physical changes of the body of boys and girls, incorporating menstrual hygiene management within the Life Orientation curriculum and Life Skills programme.
- Through community involvement and participation create opportunity to break down the barriers of stigma, culture and tradition regarding attitudes and behaviour towards menstruation.
- Provide other solutions to expensive sanitary towels such as promoting re-usable or washable sanitary towels which includes accurate information. This will help manage the issue of affordability for the poor and impoverished as well as decrease menstrual poverty.
- Through provision of recommendations originating from this current research schools will be able to develop school policy on menstrual hygiene management. The success of the development of the policy will depend on the inclusion of stakeholder involvement such as parents, school governing body members, female and male learners, female and male teachers as well as community-based organisations and representatives.
- Strengthen health and education processes in schools through combined classes when menstrual hygiene management is discussed.
- Develop ways for teachers to be trained adequately to deal with menstruation and menstrual hygiene management in schools.
- Approach the Director of Sarah Baartman Department of Education to provide each school in the Makana District with a hard copy of the policy that prohibits educators to

provide pain medication such as paracetamol to learners at the school without their parents' consent.

- The Eastern Cape Department of Education should prioritise the availability and accessibility of water at schools in the Makana District. This intervention would ensure good menstrual hygiene management.
- The provision of sanitary products by the Eastern Cape Department of Education to impoverished schools should be sustainable.
- Encourage environmental conservation the Eastern Cape Department of Education and find alternative methods on how to dispose of menstrual products. The provision of a policy guideline to schools would improve waste management systems of menstrual products. A waste management system is one of the components of menstrual hygiene management that is mostly neglected at schools.
- Menstrual hygiene management does not only include the provision of menstrual products to the girls, but also provision of proper and functional water and sanitation facilities. Schools should ensure that there is adequate water and sanitation facilities for learners.
- Encourage schools to contact and involve the private sector as well as organisations who will assist with the improvement and provision of water and sanitation facilities and washrooms at these schools.

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Appendices

Appendix 1: Research questions

Meaning and interpretation

1. In your opinion is there or are you aware of any stigma attached to menstruation? If so, what is your perception about the stigma?
2. In your opinion is menstruation viewed as a delicate/secretive topic within the school classroom? How do the learners react when the topic is discussed?
3. As a teacher have you ever had to assist a menstruating schoolgirl? If so, what support were you able to give her?

Attitude

1. Do you think that menstruation could currently be a barrier for schoolgirls participating in school activities? If so, what do you think the reasons are?
2. Have you ever had an incident in the classroom where a schoolgirl has reported that she has started her period and feels uncomfortable? If so, how did you handle the situation?

Knowledge

1. How and where should boys and girls be educated about menstruation and hygiene management?
2. Do you find it challenging as male/female teacher to educate boys and girls at school about menstruation?
3. Where and how did you gain your personal knowledge of menstruation, and at what stage of your life?

Support system

1. Is there a staff member at the school who is particularly responsible for the availability and provision of sanitary products? If so, does the staff know who that staff member is?
2. Does the school experience any lack of facilities such as bathroom, water, sanitation and waste disposal bins? If so, what and why?
3. What type of waste disposal system does the school currently have in place?
4. What facilities does the school have available, if necessary, for menstruation related ailments?
5. Do you think that a sick room can assist with menstruation? If so, how?

6. Do you as a teacher encourage the student organisations to initiate the sharing of knowledge and collection/ donation of sanitary products in the school environment? If so, give details.
7. Do you think it is important for every teacher to participate in the education of boys and girls about menstruation? If yes, how would you suggest the teacher should do it?

Appendix 2: Contents page of The National Health Promotion Policy and Strategies

The National Health Promotion Policy and Strategy | 2015 - 19

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Appendix 3: Contents page of a Grade seven Life Skills book

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iii

Appendix 4: Letter of ethical approval for the research



Human Ethics subcommittee
Rhodes University Ethical Standards Committee
PO Box 94, Grahamstown, 6140, South Africa
t: +27 (0) 46 603 8055
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NHREC Registration no. REC-241114-045

06/10/2020

Sharon Bloem

Email: g17b0009@campus.ru.ac.za Review Reference: 2020-0831-3232

Dear Prof Micheal Drewett

Title: A sociological study of menstrual hygiene management in schools in the Makana District, Eastern Cape, South Africa

Principal Investigator: Prof Micheal Drewett

Collaborators: Mrs. Sharon Gretchen Bloem,

This letter confirms that the above research proposal has been reviewed and **APPROVED** by the Rhodes University Human Ethics Committee (RU-HEC). Your Approval number is: 2020-0831-3232

Approval has been granted for 1 year. An annual progress report will be required in order to renew approval for an additional period. You will receive an email notifying when the annual report is due.

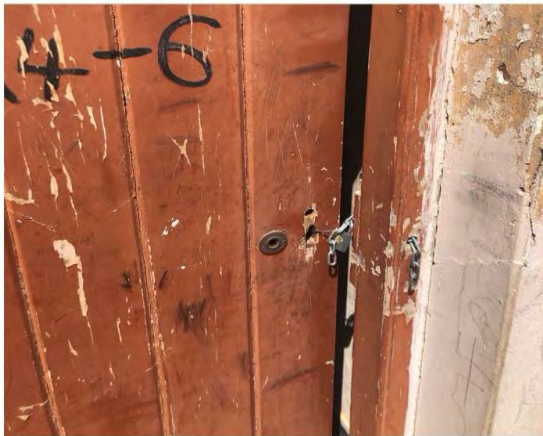
Please ensure that the ethical standards committee is notified should any substantive change(s) be made, for whatever reason, during the research process. This includes changes in investigators. Please also ensure that a brief report is submitted to the ethics committee on the completion of the research. The purpose of this report is to indicate whether the research was conducted successfully, if any aspects could not be completed, or if any problems arose that the ethical standards committee should be aware of. If a thesis or dissertation arising from this research is submitted to the library's electronic theses and dissertations (ETD) repository, please notify the committee of the date of submission and/or any reference or cataloging number allocated.

Sincerely,

Prof Arthur Webb

Chair: Rhodes University Human Ethics Committee, RU-HEC cc: Mr. Siyanda Manqele - Ethics Coordinator

Appendix 5: Public primary school

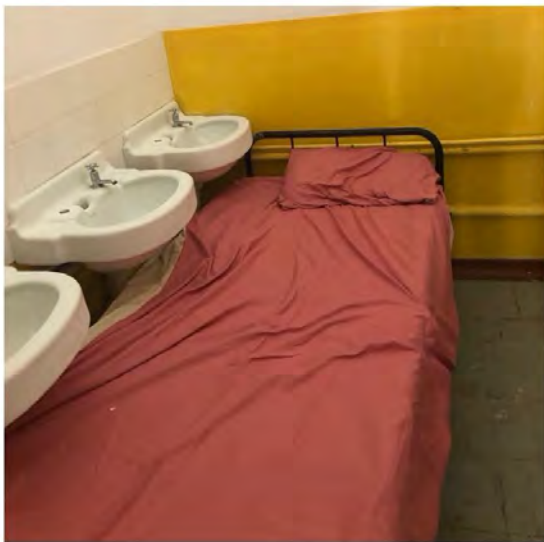


Top left: Dysfunctional toilet

Top right: Broken door

Bottom left: Unlocked toilet door

Bottom right: Hand sanitiser



Top left: Handwash basin

Top right: Ablution facility outside the main school building

Bottom left: Dysfunctional sick room

Bottom right: One of two available water tanks



Top left: Toilet without seat cover

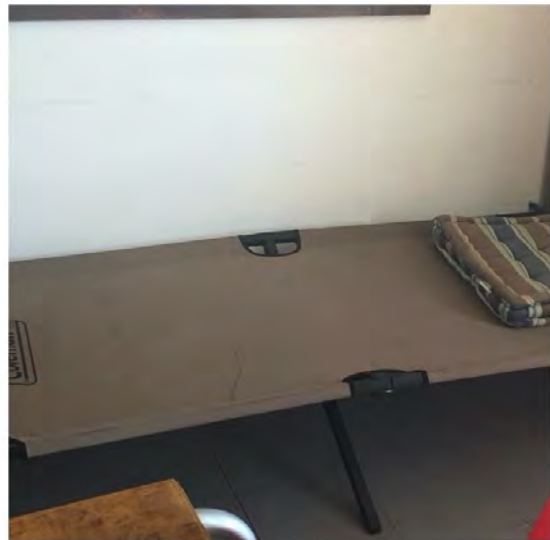
Top right: Handwash basins

Bottom: No toilet doors



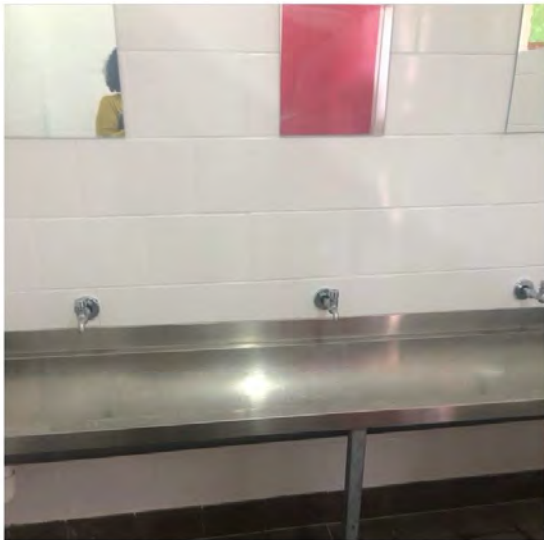
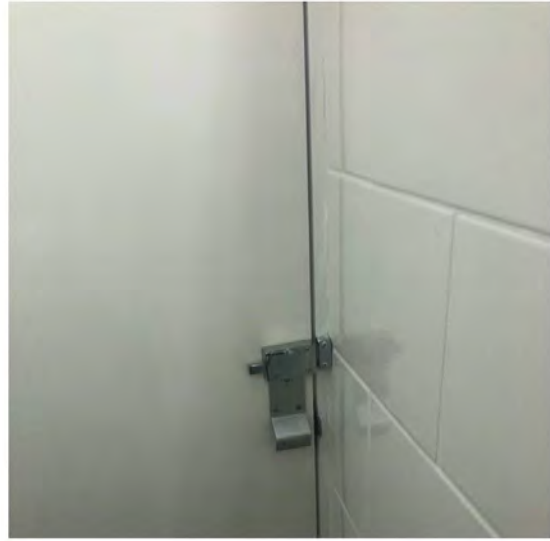
Non-functional sick room

Appendix 6: Public high school in partnership with an NGO



Top and bottom: Water tanks connected to the main water system

Bottom right: Stretcher used as a sick bed in the staff room



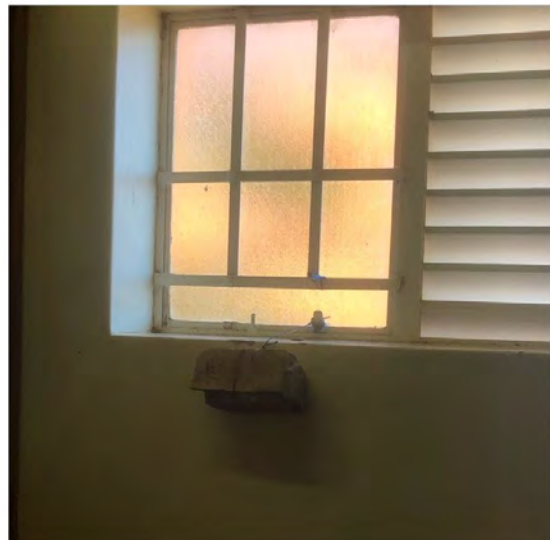
Top left: New renovated toilet and small bin for used sanitary towels

Top right: Locked toilet door

Bottom left: Handwash basins

Bottom right: Water tanks connected to the borehole water

Appendix 7: Public high school



Top left: No seat cover and lid

Top right: Window close with brick

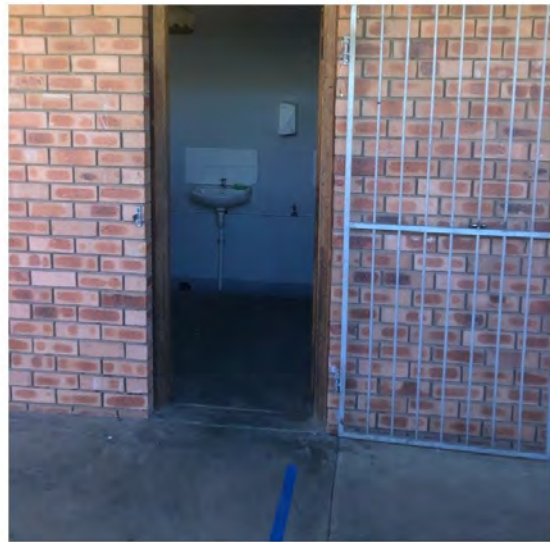
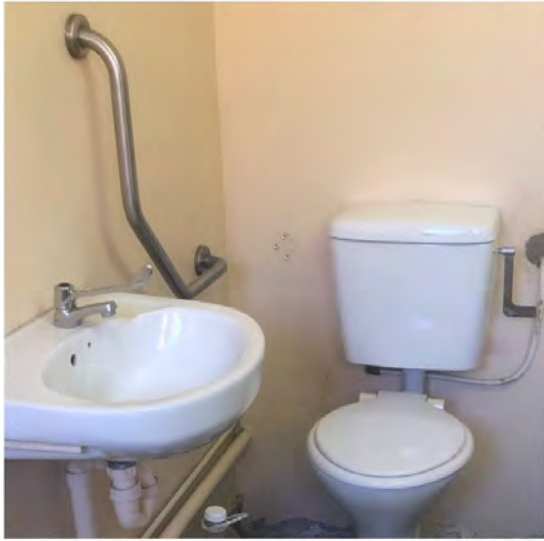
Bottom left: One sanitary waste disposal container in one ablution facility

Bottom right: Window closed with a brick in the toilet facility



Top: One of two water tanks not connected to the main water system

Bottom: Sick bed in a storeroom



Top left: Disabled toilet utilised to store 5 litre water bottles

Top right: Gate stored in the ablution facility

Bottom left: Toilet without lid and a small bin for used sanitary towels

Bottom right: One of the sanitation facilities

Appendix 8: Semi-public school

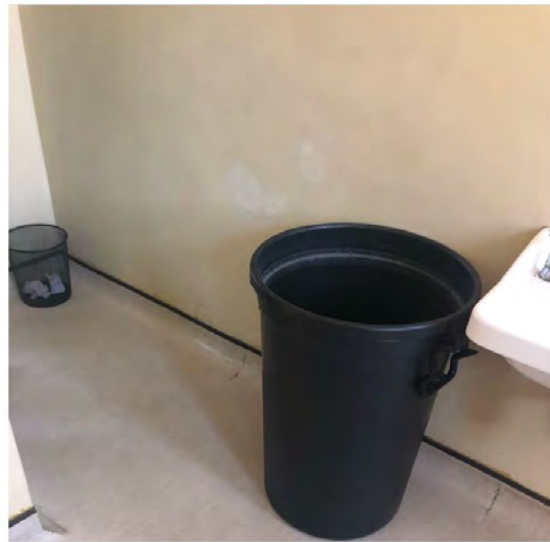
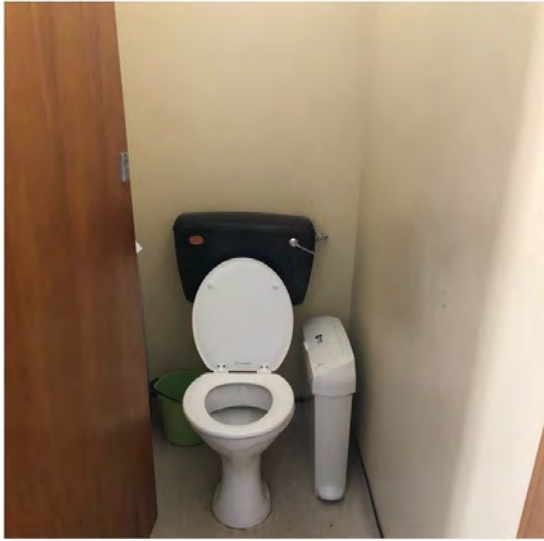


Top left: Locked toilet door

Top right: One of the water tanks connected to the main water system

Bottom right: Borehole

Bottom right: A chair where the learners wait for their parents when they are unwell.



Top left: Functional toilet and sanitary waste disposal container

Top right: Hand towel available in the bathroom

Bottom left: Hand wash toilets

Bottom right: Black water container used to flush toilets when load shedding occur

Appendix 9: Private primary and high school



Top left: Functional toilet

Top right: Locked toilet door

Bottom left: Sanitary waste disposal container and toilet paper

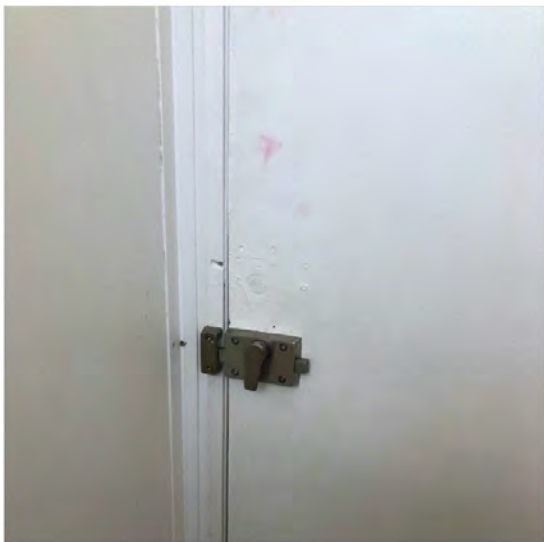
Bottom right: Handwash basins and hand towel



Top: Handwash basins

Bottom left: Available water tanks

Bottom right: Water pump connected water tanks with the main water system

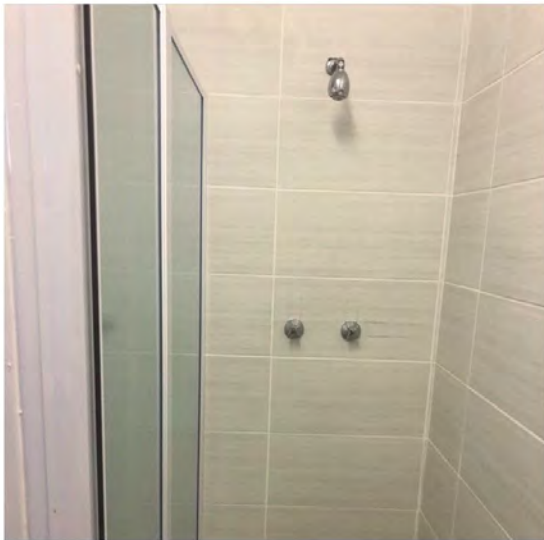


Top left: Functional toilet and sanitary waste disposal container

Top right: Toilet paper

Bottom left: Locked toilet door

Bottom right: Handwash basin with a granite top in the female bathrooms



Top left: Handwash basin

Top right: Hand towel

Bottom left: Shower

Bottom right: Functional toilet and sanitary waste disposal container



Top left: Sanatorium facility with beds

Bottom and top: Water tank connected with the main water system