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**The Effect of Menstruation on Academic
Performance of High School Girls: A Case Study on
Human Dignity in Migori County, Kenya**

Osea, Josephine

**Submitted in partial fulfilment of the requirements for the Degree of
Master in Applied Philosophy and Ethics at Strathmore University**

**School of Humanities and Social Sciences
Strathmore University
Nairobi, Kenya**

June 2018

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Abstract

Numerous studies have been conducted on menstrual hygiene the world over. However, Menstrual Hygiene Management is an insufficiently acknowledged problem especially in rural low-income countries, like Kenya, particularly in its relation to school absenteeism. Modesty is the natural tendency of persons to protect their intimacy. Intimacy is a private interior that only the individual person concerned is aware of. There are three contexts which may be used to shield intimacy from strangers and protect it from public view, namely, language, clothing and shelter.

This study examined the effect of menstruation on academic performance among high school girls within Kuria East and Kuria West Sub-Counties of Migori County, as a way to recognize their human dignity. This Thesis focuses on three specific objectives, namely, to explore the social and infrastructure support systems about the menstrual event within the family context, to explore the social and infrastructure support systems within the school context and to assess the effect of environmental factors surrounding the menstrual event in the academic performance of high school girls.

This study is based on a Conceptual Framework by Mortimer J. Adler known as Educational Perennialism; which is the teaching of students to appreciate unchangeable things like human dignity. A mixed methods research was adopted. The population of the study is adolescent girls in Form 2 and Form 4 randomly selected from three purposefully selected girls-only rural public secondary schools; namely Kwibancha, Nyaroha, and Taranganya Girls Secondary Schools. The sampled data comprised 151 female students of ages between 14-17 years using questionnaires; and 30 females of ages between 17-19 years through focus group discussions. The Parallel Convergent Design Approach was used to analyze the data; with the aid of descriptive and narrative analysis to analyze the qualitative and quantitative data collected, respectively.

The study found that the first menstrual experience of the high school girls was challenging considering that some of them did not understand what was happening to them. Some of the girls experienced fear and embarrassment because of a lack of early and effective training at home and in school on the everlasting things of life, lack of

support systems at home and at school, lack of money to purchase sanitary pads and lack of accurate information about menstruation and its effective management.

The study recommends that there should be training at an early age to empower, train and educate girls on unchangeable things like human dignity and intimacy; introduction of effective and efficient menstrual hygiene management as a topic in subjects for high school girls, and to empower the girls to appreciate themselves first as being human beings and secondly to appreciate their natural girlhood as girls because that is their human nature as adolescent girls; the development of a Code of Ethics and mainstreaming Menstrual Hygiene Management with reference to the yet to be published National Policy on Menstrual Hygiene Management for Kenya. Furthermore, this study makes several recommendations, including, the urgent need of breaking the silence on menstruation.

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List of Abbreviations

FGD	-	Focus Group Discussion
FGM	-	Female Genital Mutilation
GoK	-	Government of Kenya
KG	-	Kwibancha Girls Secondary School
LMIC	-	Low and Middle-Income Countries
MDG	-	Millennium Development Goals
MHM	-	Menstrual Hygiene Management
MoH	-	Ministry of Health
NG	-	Nyaroha Girls Secondary School
SDG	-	Sustainable Development Goals
TG	-	Taranganya Girls Secondary School
UNICEF	-	United Nations International Children's Emergency Fund
WHO	-	World Health Organization

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Dedication

I dedicate this Thesis to my other late sister, Eunice Abayo, who died on June 20, 2007 and to all the adolescent girls in rural secondary schools in Kuria East and Kuria West Sub-Counties of Migori County, Kenya who poured out their intimacy to those who cared to listen.

Chapter 1: Introduction

1.0: Background to the study

Globally, menstrual hygiene management is an insufficiently acknowledged problem especially in rural low-income countries (Tjon A. T., 2007) despite the fact that there are 1.2 billion adolescents, one in every five people in the world today (Shankaraiah, Haveri, Mallappa, & Saheb, 2013). According to UNICEF (2005), one in 10 school age African adolescent girls miss school during their menstruation or drop out at puberty because of the lack of clean and private sanitation facilities in schools (Ngugi & Nyaura, 2014; Chebii, 2014). Menstruation is a natural part of girls' reproductive cycle. It is a key sign of reproductive health and without menstruation, life cannot be generated (UNICEF East Asia and Pacific Regional Office (EAPRO), 2016). Knowing that menstruation is a normal, healthy occurrence and, also knowing how to manage it effectively can increase an adolescent girl's confidence level and self-esteem and also encourage a more supportive environment between parents, teachers and fellow students (UNICEF East Asia and Pacific Regional Office (EAPRO), 2016).

According to Pol and Morales (1991), the school environment comprises the school building with all its spaces and its indoor and outdoor facilities and services that are placed in a given social and environmental context which could be either urban or rural. Examples of environmental factors include sound, light, color, temperature and noise and these factors must be considered in the design, planning and organization of school premises (Comesana & Juste, 2007). Sommer (2013) discovered that more than half the schools in low-income countries lack sufficient pit latrines for menstruating girls. The toilets often have no safe doors and adolescent girls feel harassed by boys as they attend to their menstrual needs. Adequate water, when available, is often at a distance far away from the pit latrines. This situation makes it very challenging for the girls to privately wash blood from their hands and school uniforms before going back to class: it amounts to ignoring their human dignity.

Sommer (2013) observed that there are eight structural factors in school that were noted to affect the adolescent girls' academic success, health and well-being. These eight factors are availability of services and sanitation systems in schools, basic water, curriculum, dormitories, disposal paths, cloth and beliefs about menstruation, faculty members and teachers at school, school discipline and school policies.

The Kenya Environmental Sanitation and Hygiene Policy, 2016 – 2030 that was launched on May 18, 2016 includes a section (5.4.6.) on Menstrual Hygiene. The Kenya Environmental Sanitation and Strategic Framework, 2016 – 2020 also addresses Menstrual Hygiene Management (MHM) under strategic intervention area 1: Scaling up sustainable access to improved rural and urban sanitation; strategy 5.4.5 also discusses ways of improving menstrual health and hygiene practice (Government of Kenya, 2016).

Menstruation is a natural phenomenon among mature females who experience shedding of blood for a period ranging between 1 – 7 days, monthly (Omidvar & Begum, 2010). Adolescence is a transition period from childhood to adult life for a girl during which period, she undergoes pubertal development and sexual maturation takes place (Sapkota, Sharma, & Khanal, 2013).

Adolescent girls must have the necessary knowledge, structural facilities and an enabling environment to manage their menstruation hygienically and with dignity (Omidvar & Begum, 2010). Numerous researchers have discovered that adolescent girls, especially from the low-income areas, usually lack adequate and correct knowledge regarding menstrual hygiene management (Sapkota, Sharma, & Khanal, 2013; Gupta & Gupta, 2001; Subhash B. Thakre, 2011). Moreover, prior awareness of menstruation before its onset is poor among adolescent girls, particularly in low-income countries (Ahuja & Tewari, 1995; Chaudhary, 1998; Khanna, Goyal, & Bhawasar, 2005; Sharma, Vaid, & Manhas, 2006; Singh, 2006; Chebii, 2014). The lack of knowledge can be due to socio-cultural barriers in which the adolescent girls grow up in. The girls need accurate information, education and an enabling environment to cope with their menstruation needs.

Effective menstrual hygiene management is critical for the mental and physical well-being of the adolescent girls (Parker, et al., 2014). Kandpal, Semwal & Negi (2012) observed that good menstrual hygiene management is crucial not only for the health and education of the adolescent girls but also for their dignity. The conclusion by Juyal, Kandpal, Semwal and Negi (2012) that if the adolescent girls are empowered and made aware of menstrual hygiene right from early adolescent period, they will be better prepared to accept the menarche when it starts and they will also be better equipped and knowledgeable about how to manage their menses effectively.

Menstruation is managed differently by adolescent girls according to cultural, social and economic contexts (McMahon, et al., 2011). In the Zimbabwean context, culture was found to be an influence on pre-menstrual and menstrual experiences. Despite the negative early experiences of menarche, the Zimbabwean women were reported to have accepted their pre-menstrual and menstrual changes (McMaster, Cormie, & Pitts, 1997).

Adolescent girls hid the onset of their menstruation from other people and opted to miss school during their menstruation due to the fear and embarrassment of a shameful menstrual leak (Winkler & Roaf, 2013). The desire to suppress menstruation is accompanied by an attitude that menstruation is dirty and disgusting and that is why there is a perceived secrecy (Schooler, et al. 2005; Sommer, 2015; Shukla, 2005). The overall false perception is that menstrual fluid is dirty and polluting especially in the Indian culture and that is why its management is surrounded with secrecy and the menstruating girls are regarded as untouchable (Shukla, 2005). However, Roberts & Waters (2004) argued that girls and women's feelings of acceptance for their natural bodily functions should not depend on another person (Kamath, Ghosh, Lena, & Chandrasekaran, 2013). Moreover, this leads to the question, how can the menstrual fluid be regarded as dirty and yet it is the beginning of life for a baby in the mother's womb (McMahon, et al., 2011)?

UNICEF (2016) reported that girls continue to be subjected to several challenges while attempting to manage their menses effectively due to things like taboos, norms and practices; a lack of access to accurate information, poor access to water, sanitation and hygiene facilities. The consequences of these challenges can affect a girl's education and her right to equality, her right to health and her right to dignity.

The Kenyan context shows that adolescent girls from Nyanza Province in western Kenya are not effectively taught how to manage their menstruation and yet menstruation is the first stage of the journey of the life of a baby before birth. Menarche, therefore, is a critical stage in an adolescent girl's life because it signifies a golden opportunity to teach them how to take care of their bodies, and also that they have the potential to determine their future without feeling ashamed or embarrassed (McMahon, et al., 2011); such lessons are perennial and everlasting in an adolescent girl's life as advocated by (Adler, 1952; 1961).

1.1: Problem statement

Numerous studies have been conducted on menstrual hygiene management, ranging from lack of knowledge or awareness about menstruation, provision of free sanitary materials to adolescent girls in primary and secondary schools in both urban and rural areas in low-income countries, to focusing on the structural and environmental factors that influence the decisions that the menstruating school girls make as they try to manage their menses with the available materials. Studies have also been conducted on the adolescent girls' health, perceptions and attitudes about menstruations and disposal of used menstrual materials. These studies were conducted in several developing countries including Kenya, Nigeria, Tanzania, Zimbabwe, India, Nepal, Bangladesh, Pakistan, Egypt, Uganda, (Gilany, Badawi, & El-Fedawy, 2005); (Adinma & Adinma, 2008); (Oster & Thornton, 2011); (Lawan, Yusuf, & Musa, 2010) (Kothari, 2010) (Aflaq & Jami, 2012) (Sommer, Kjellen, & Chibesa, Girls' and women's unmet needs for Menstrual Hygiene Management (MHM): The Interactions between MHM and Sanitation Systems in Low-Income Countries, 2013) In almost all these studies, the main stakeholders are the adolescent girls but their human dignity and intimacy as girls need to be addressed. Unfortunately, the family's role is missing from the menstrual hygiene management equation.

Although families and especially mothers, try to educate their daughters on menstruation and its management in a manner that will ensure that their privacy, intimacy and their dignity is protected and respected, some findings (Winkler & Roaf, 2013) asserted that policy makers and key stakeholders must acknowledge that menstruation is a natural fact of life, that must be integrated at all levels of life and only then will there be an enabling environment for adolescent girls and women to manage their menstruation adequately without shame, embarrassment, secrecy, fear, humiliation, silence, taboo and stigma.

Kirk & Sommer (2006) reported that menstruation created several challenges e.g. physical, socio-cultural and economic constraints, which may interfere with an adolescent girl's ability to attend school and actively participate in class and school activities. Oster & Thornton (2011) reported that policy-makers have stated that menstruation and lack of effective sanitary products were barriers to adolescent girls' schooling. Low academic performance has been found to be one of the main results

attributed to menstruation-related challenges (Clark & Ruble, 1978; Moos, 1986). Moreover, popular media has reported that menstruation is limiting school attendance (Mawathe, 2006; BBC News, 2010).

It is for these reasons that the study examines the effect of menstruation on the academic performance of high school girls in three rural public secondary schools in Kuria East and Kuria West Sub-Counties, as a mirror of the dignity they are accorded.

1.2: General Objective

The general objective of the study is to determine the effect of menstruation on academic performance among high school girls in Kuria East and Kuria West Sub-Counties of Migori County.

1.2.1: Specific Objectives

The study is guided by the following specific objectives.

- i. To explore the social and infrastructure support systems about the menstrual event within the family context.
- ii. To explore the social and infrastructure support systems about the menstrual event within the school context.
- iii. To assess the effect of environmental factors surrounding the menstrual event in the academic performance of high school girls.

1.3: Research Questions

The study is guided by the following three research questions.

- i. What are the hygiene management facilities and the environment high school girls have at home?
- ii. What are the hygiene management facilities and the environment high school girls encounter at school?
- iii. How does menstruation affect academic duties?

1.4: Scope of the study

The study was carried out in March 2017.

1.5: Significance of the study

The study findings may contribute towards the formulation of a Code of Ethics for public secondary schools. The Code of Ethics will include a Chapter on the best practices in menstrual hygiene management by all stakeholders in Kenya. The Code of Ethics will refer to the yet to be published Policy on Menstrual Hygiene Management for Kenya.

1.6: Limitations of the study

- i. Structural limitations: a) there are fewer girls-only rural public secondary schools that are structurally well-equipped and address the menstrual needs of adolescent girls. b) security and access to some of the rural public secondary schools was a limiting and challenging factor. c) the study focuses on girls-only rural public secondary schools. d) health challenge experienced by the researcher and e) time constraints on the researcher as she is a salaried employee with a family.
- ii. Sampling limitations: the proposed sample methodology was to sample four girls-only secondary schools using Creswell (2014) guide and Slovin's formula (Guilford & Fruchter, 1973) to derive the sampling unit for respective schools with a sample size of 321. However, the study was only able to sample 151 because most of the targeted girls were sitting for their end of term examinations and there was limited access to their schools. Another limitation was the heavy rains in Kuria East and Kuria West Sub-Counties that made the roads impassable during the course of the research.
- iii. FGD: due to the fact that the study was conducted during the end of Term One, 2017 examination period, it was not possible for the researcher to conduct a uniform number of Focus Group Discussions in all the three (3) schools.
- iv. The research was not conducted at a proposed 4th school, "Moi Nyahonse Secondary School"; this was because of the end-of-term period this research was conducted. With the consent of the supervisor, the researcher conducted the research study in three (3) Secondary Schools: two from Kuria East Sub-County, namely, Kwibanacha Girls Secondary School and Nyaroha Girls Secondary School; and one Secondary School from Kuria West Sub-County, namely, Taranganya Girls Secondary School, which was a replacement for an earlier selected school 'St. Mary's Girls Secondary School'.

Chapter Two: Literature Review

2.0: Human Nature and Intimacy

The concept of the person that best expresses his dignity is the ontological one by Boethius, that a human person is an individual substance of rational nature, and by St. Thomas Aquinas, that a person is a distinct subsistent being of intellectual nature (Mimbi, 2007). The natural dignity of the person flows from his being. The being of a human person does not consist in being but consists “in being human” (de Torre, 1981). One aspect of “being human” is the capacity to act in order to perfect one’s own being. Human nature perfects itself through action. The subjective approach to human nature describes personhood from the point of view of the acting person. One characteristic of a person looked at subjectively is intimacy. Intimacy is interior place of inviolable privacy of the person (Mimbi, 2007). One’s intimacy is very important because there is a natural feeling that guards it; i.e. shyness. Shyness is a deep sense of modesty. There is a natural sense of modesty in speech, dress or behavior about one’s intimacy. The uniqueness of an individual’s intimacy is an indicator that a human person is a *mini* absolute. “Absolute” is a term used by modern philosophers and it signifies completeness and perfection, i.e. nothing else needs to be added to this being. Absolute also refers to that which exists by its own human nature and is therefore independent of everything else. Absolute also refers to being related to no other being. Absolute refers to the sum of all being, actual and potential. In conclusion, the human being is therefore a stand-alone independent being act and potency, i.e. actual and potential.

2.1: What is modesty?

Choza, (1990) defined modesty as the tendency to protect man’s intimacy from strangers; other authors (Selles, 2010) defined modesty as a personal quality. If the human person does not value his or her intimate self, what will he or she offer to the other person? The family is the first and highest manifestation of the human person and this is because each person is a family within his or her intimacy (Selles, 2010). Modesty was defined using three contexts where it must be protected, namely, language, clothing and shelter (Choza, 1990).

Firstly, through language, modesty can be lost through one talking too much and revealing too much information unnecessarily to a stranger. When we speak too much, we become naked because we lose our intimacy. Secondly, through clothing, modesty can be lost when one dresses scantily, revealing too much of his/her body. Finally, shelter is the place where man feels protected and safe in the company of his family (Choza, 1990). If we invite strangers to our home and reveal too much, we become naked because we have exposed our intimacy to strangers and therefore, lost our intimacy.

Castilla (2014) found out that the human person is an area of human reality more profound than his nature. In every human being, there is a consciousness of a dignity that one starts to experience that nobody can take away, an inner freedom that is possessed. This freedom is the special value that every human person has by virtue of being (Selles, 2010). Life depicts some *interiority*, an openness or a type of freedom. Therefore, the more one experiences intimacy, the more the openness is experienced by the person. This means that the human person is an act of being with a soul and a body. In conclusion, man is person (Selles, 2010).

Research studies have stated that most adolescent girls prefer to miss school and stay at home during their menstruation because they feel safe and protected under the care of their mothers and family members in general, as opposed to remaining in school, with teachers, most of whom are male; (Kamath, et al., 2013; Sommer, 2013). During the development of the Water, Sanitation and Hygiene (WASH) guidelines for schools in Kenya, it was reported that menstruation is one of the greatest hurdles that limit school attendance among girls (Greene, 2009). The United Nations International Children's Emergency Fund (UNICEF, 2012) has estimated that 1 in 10 African girls either miss or drop out of school during menses (McNaughton, 2011). On the other hand, there is research that states that menstruation has a very small effect on school attendance by adolescent girls (Oster & Thornton, 2011). The World Bank has quantified the menstruation problem (World Bank, 2005). If a girl misses 4 days of school every 4 weeks due to her menses, she will miss 10 to 20 percent of her school days (Mooijman, van den Berg, Jensen, & Bundy, 2005); (Tjon A. T., 2007)).

2.2: Adler's Educational Perennialism and Human Dignity

Mortimer J. Adler was a proponent of the Philosophy of Education known as Perennialism. Educational Perennialists proposed that education should focus on what is perennial, that is, on everlasting topics. According to (Adler, 1961) human life has its unique worth only if it achieves stature through activities that are uniquely human. He explains that man's special dignity lies in the goods which no other creature shares with him, as other creatures share with him the goods of food, shelter, sleep and play.

“In order to affirm the dignity of man and to affirm in addition that man and man alone of all terrestrial beings has this special dignity, one would have to affirm the following propositions: *that man and man alone is a rational animal with free will*; that all the other creatures on earth from stones up to apes, have no reason and no freedom, no choice, in the course of their behavior; that the kind of reason man has is, in the conduct of human affairs, able to direct his free decisions, of the decisions that we make individually and as societies; *that man is a person, not a thing*, and that we understand that this distinction between being a person or being a thing is a distinction that is radically one of kind, not of degree: you cannot be more or less of a person or more or less of a thing. All the objects in the world divide absolutely into persons and things, and man, on earth at least, man and man alone is a person, that as such, he is created, created in God's image and that, as a person with reason and free will, he has only as a person with reason and free will, does he have inalienable natural rights, especially those of citizenship and all the basic civil rights and liberties. And that, *as a person, with reason and free will, he is innately imbued with the natural moral law*, which is the guide of his conduct and the source of his obligations and which finally appoints to him a good or end or goal that transcends this temporal life and the welfare of the state as such. This is a body of notions that hang together, no one of which, I think, can be torn apart from the others. If anyone is affirming, really affirming the dignity of man, he is affirming all these things together.” (*Italics are mine*; (Adler, 1952).

As the human person enjoys economic security and independence, he/she has the opportunity of achieving “a full measure of human dignity”. On the other hand, (Adler, 1961) cautions that a man can fail to achieve human dignity if he does not take advantage of engaging in the intrinsically virtuous activities by which the human person is able to pursue happiness and serve the common good of their society. Such a human

person becomes debased and worse off than he was before. Therefore, Adler's recognition of human dignity links to Educational Perennialism because through this type of education, schools would have to operate in a manner consistent with the dignity of rural adolescent girls. Adler (1961) emphasizes that in order to achieve human dignity, the human person must move to a much higher level of interests, that is, the transcendental level. But what is the transcendental level? According to (Selles, 2010), Leonardo Polo developed four Personal Transcendentals ranked in order from the least to the most superior. These four Personal Transcendentals are Co-Existence, Personal Freedom, Personal Knowledge and Personal Love.

Co-existence is the lowermost of the four personal transcendentals. Co-existence means to be-with, that is, *to exist and to be* as a human person and to co-exist with other human persons within the society. The human person is a social being therefore he or she must co-exist and commune in unity with other human persons in order to experience human nature or humanity for the common good of all humanity. This is because the human person is unity (Selles, 2010); (*Italics in this paragraph are mine*).

Personal Knowledge is the second level of the four personal transcendentals. Personal Knowledge is the cognitive transparent light or personal meaning of the act of being that each human person is because of his nature. Personal Knowledge cannot be likened to truth or caused to resemble truth because truth is a transcendental level that is related to Knowledge. Truth is not what exists or what is. Truth is in the mind of the human person! It is important to note that there is no truth without knowledge (Selles, 2010). That is why (Adler, 1961) emphasized that human life has its unique worth "only if it achieves stature through activities that are uniquely human". The human person's special dignity lies in the goods which no other creature shares with him or her, for example, human dignity and intimacy. Other creatures are at the lower animal or vegetative level and do not have the capacity to share dignity with man because human dignity exists only in human beings, not in other creatures. Man is superior to animals and other creatures. Hence, truth can be transcendental only on condition that knowledge too is transcendental. This is because truth depends on accurate knowledge. Without accurate knowledge, truth simply cannot exist! Truth is truth on being known not before or outside of accurate knowledge. According to Leonard Polo, this Personal Knowledge is the equivalent of *agent intellect* that was proposed by Aristotle.

According to Aristotle, the *agent intellect* is the most active element of human knowledge (Selles, 2010).

Personal Freedom is the third lowermost level of the four personal transcendentals. Personal Freedom is superior to Co-existence. The human person does not possess freedom because the human person is actually freedom itself! Each human person is a different, unique and distinct freedom (Selles, 2010).

Personal Love is the superior Personal Transcendental according to Polo. Personal Love is about the giving of oneself to the other in totality. This is because the personal act of being does not lack anything but is overflowing and is abundantly overflowing from oneself to the other person. Polo discovered three dimensions of Personal Love. The first dimension of Personal Love is Acceptance. The second dimension is Giving or Donation of self to the other human being. The third dimension of Personal Love is the Gift. In creatures, the Acceptance is superior to Giving. The Gift, according to Polo, is not transcendental because the gift belongs to the human essence, thus directing both Personal Acceptance and Personal Giving to the final end of the human person, which is the ultimate good and truth, that is, true happiness, who is God. In conclusion, Polo emphasized that in order to manifest his love, the human being must carry out works, that is, the human being must act, he must do something. The human person must realize that action speaks louder than words. In short, deeds are love! Therefore, Personal Love, which is the superior in the Personal Act of being, “*binds and attracts what is inferior through action*”! (Selles, 2010).

Selles (2010) stated that to educate is first to accept and then to give. When one gives, it means that one has given of his self to the other. For example, if a teacher does not accept his or her students as unique and distinct human persons possessing their human dignity, then that teacher does not educate the students with a personal touch and personal *rapport*. Students learn much more than what is taught in class from good teachers because these good teachers have gone the extra mile and given their selves to their students wholeheartedly. That is why the best students are those who accept those teachers that have accepted them as they are, with all their weaknesses and strengths, that is, as human persons.

This is because the onset of menstruation and puberty indicates that the woman’s body is being prepared and becoming ready for child-bearing (Sapkota, Sharma, & Khanal,

2013). A menstruating woman is seen as a normal woman and many women accept menstruation positively despite experiencing some discomfort and challenges (Chrisler, 2008); (Lee, 2002); (Marvan, Cortes-Iniestra, & Gonzalez, 2005).

According to Coughlin (2003), Pope John Paul II affirmed that reason is a distinctive human capacity that testifies to human dignity. Human Dignity refers to the inherent and equal worth of every human person in three key ways. Firstly, human dignity applies specifically to human beings. Secondly, human dignity applies equally to all human beings regardless of race or age or gender. Thirdly, human dignity is an inherent and intrinsic characteristic of the human personality (Bayefsky, 2013).

Immanuel Kant's conception of dignity refers to the autonomy and inherent worth of the human being which underscores an obligation to treat people not as mere means but as ends in themselves (Misztal, 2013). Humanity has profound dignity because dignity refers to a value which is held universally and applies to all human beings' inherent and intrinsic worth (Misztal, 2013).

2.3: Ethics and the Human Person

(Selles, 2010) defines Ethics as a discipline that perfects the human person's essence and the human person's nature. Ethics focuses on action, what the human person is doing because Ethics is the highest practical knowledge. Ethics is practical therefore doable.

What are the Ethical Principles?

Ethical Principles are about doing what is morally right. That is, choosing to do what is right. This is choosing the irascible good as opposed to choosing the easy good known as concupiscible good (Selles, 2010).

Human Essence refers to perfection. In the human person, the essence comprises two immaterial potencies, the human intellect and the human will. The human intellect is made perfect by virtues habits while the human Will is made perfect and enhanced by virtues (Selles, 2010).

Virtue, which comes from the Latin word *virtus*, is the intrinsic will's perfection. Virtue refers to the interaction between the act of having and the act of being of the human person. Virtue is the combination of dynamic action of the human person who endows the will with such perfection (Selles, 2010). Social virtues are the pillars of the will for the social common good of society. Social virtues can be developed and enhanced by the collective responsibility of all members of the society for the common good of all.

The human essence is developed and made better by *synderesis*. Synderesis can be defined as an inherent habit that human beings are all born with. Synderesis can be improved through the use of virtuous habits. The human person has potential to act and become the best version of himself or herself. Therefore, it is unethical that the dignity of the adolescent girls is lowered because of an environment that is disabling their ability to effectively manage their menses in a hygienic and culturally sensitive manner (Selles, 2010).

The Three Ethical Schools of Ethics

In Western Philosophy, there are three main schools of ethics. The first school of ethics is called Virtue Ethics and it is based on Aristotle's work on virtues. Aristotle proposed that the four Cardinal Virtues, namely, Prudence, Justice, Courage and Temperance, are dispositions that act in a manner that provides a benefit to both the human persons who possess the virtues themselves and to the society as a whole (Aristotle). The second school of ethics by Emmanuel Kant is called Deontology and it focusses on the importance of duty. The third school of ethics, called Utilitarianism by John Stuart Mills, focuses on the principle of utility).

Virtue Ethics

Virtue Ethics emphasize the role of human character and virtue in moral philosophy instead of focusing on either doing one's duty or being responsible in order to ensure good consequences for the common good of all. Virtue Ethics deals with bigger questions about life as a whole. For example, "how should I live my life?" or "What are the proper family and social values that I should impart on my family?" (Selles, 2010).

Mortimer J. Adler's Ethical Principles

Adler's Ethical Principles follows Aristotelian thinking. Adler was a chief proponent of general education in the classics. Adler's slogan was "*Philosophy is everybody's business*". This is because he strongly believed that Philosophy affects one's life. For example, the Great Books idea by Adler spoke to and informed all categories of people academia and non-academia, civil society groups, politicians, etc.

2.4: Towards Achieving the Sustainable Development Goals: the Kenyan context

Everyone the world over was elated when world leaders met in September 2015 and developed the Sustainable Development Goals (SDGs) to replace the eight Millennium Development Goals (MDGs) that had not been achieved by most States. The world leaders came up with seventeen goals that were to exponentially move the world towards a just and equal society. The SDGs focus on five themes: people, planet, prosperity, peace and partnership. Countries agreed and resolved to end poverty and hunger and ensure that all peoples of the world can fulfil their potential in dignity and equality and in a healthy environment (World Bank, 2016).

However, there is one hygiene component that is glaringly missing from the SDGs and yet it affects half of the world's population (World Bank, 2016) that is Menstrual Hygiene. Menstruation is a normal biological process and a key sign of reproductive health. But how does menstruation affect the seventeen Sustainable Development Goals? Is there any effect in meeting the demands of creating a just and equal society without addressing the rights of girls and women? Menstruation will affect six SDGs as highlighted below: -

Goal #3: Ensure healthy lives and promote well-being for all at all ages: Lack of access to healthy and sanitary menstrual products will force girls to use unsafe materials in order to manage their menses. (Wilson, Reeve, Pitt, Sully, & Julious, 2012); (McMahon, et al., 2011).

Goal #4: Ensure inclusive and equitable quality education and promote life-long opportunities for all: One of the main causes of high school girls' absenteeism from school is menstruation. In Kenya, research has shown that girls miss approximately five days per month when they are on their menses (Muvea, 2011); (Afripads, 2013).

Goal #5: Achieve gender equality and empower all women and girls: Since menstruation is perceived to be shrouded in myths and taboos, girls and women in the Indian culture for example are portrayed as dirty and polluting while they are having their menses and this perception reinforces their belief that they are inferior to boys and men, respectively.

Goal #6: Ensure availability and sustainability of water and sanitation by all: In order to practice proper menstrual hygiene, women and girls need facilities that are safe, clean and culturally acceptable where they can safely dispose of their used menstrual products with dignity. They also need adequate water to safely clean their homemade pads to reduce infection.

Goal #8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all: Most cultural practices do not permit women to attend to many activities when they are menstruating. In the work places, women who cannot manage their menses safely will opt to stay at home for the duration of their menses, ranging between one and seven days a month.

Goal #12: Ensure sustainable consumption and production patterns: Only 10% of girls and women worldwide can access commercial sanitary towels. What happens to the remaining 90%? They have no option but to use other improvised alternatives. Governments should consider removing taxes on menstrual products and make them affordable and safe to use by adolescent girls and women (Chebii, 2014).

2.5: What is Menstrual Hygiene Management?

WHO and UNICEF (2012) define Menstrual Hygiene Management (MHM) as “women and adolescent girls’ use [of] a clean material to absorb or collect menstrual blood” and the ability to “be changed in private as often as necessary for the duration of menstruation. MHM also includes using soap and water for washing the body as required and having access to facilities to dispose of used menstrual management materials.”

Menstruation is a key part of female identity (Winkler & Roaf, 2013). Furthermore, from an anthropological point of view, a woman’s body is more united to her person than a man’s body is to his person (Selles, 2010). Chebii (2014) noted that menstruation is treated with silence and as a taboo topic, and this treatment limits adolescent girls’

access to relevant and important information about their bodies. Effective menstrual hygiene management is about the dignity and modesty of the adolescent girls (WEDC, 2012); (Juyal, Kandapal, Semwal, & Negi, 2012); (Lawan, Yusuf, & Musa, 2010)).

For good and safe menstrual hygiene management, there are critical elements that have to be availed as follows:

1. Sustainable access to and use of safe and hygiene material (including underwear) to collect or absorb menstrual blood so that girls can change as often as necessary. This refers to the availability of all the materials required to change in dignity and in privacy in order to protect her intimacy.
2. Access to water and sanitation facilities to bathe and clean the menstrual products. This refers to the availability of sufficient WASH facilities for a lady to change and clean the used menstrual products in dignity and in privacy within a safe environment.
3. Sustainable access to infrastructure that allows the safe and hygienic disposal of used menstrual products. This refers to the availability of a functioning toilet or pit latrine that has a door and can be locked from inside while one changes in dignity and a toilet or pit latrine that has sufficient water and soap for cleaning.
4. Access to accurate and pragmatic information for girls and women on all relevant topics related to menstruation. This refers to the easy access and availability of relevant menstrual hygiene management information to enable the girls and women make informed decisions to improve their dignity and for their daily lives for the common good of the society as a whole. No one is being left behind.
5. Accurate information to the community and influencers addressing social norms; breaking the silence and addressing harmful beliefs and practices. This refers to the breaking of social norms e.g. the erroneous belief that menstrual fluid is unclean. This social norm has been proven to be false by educating the masses that menstruation is a normal biological process whereby the inner lining of the uterus is shed off on a monthly basis because the womb was prepared to accommodate a baby.

Ignoring any of these elements amounts to debasing the dignity of women. Taking cognizance of the above key elements, Kenya has adopted a three-pronged approach to menstruation (Patkar, 2016). The three-pronged approach comprises

- a) Breaking the silence around menstruation
- b) Safe and hygienic menstrual management
- c) Safe and hygienic disposal of menstrual waste

With support from the Water Supply and Sanitation Collaborative Council (WSSCC), eight representatives from Kenya's Ministry of Health were trained in India on the above three-pronged approach to menstruation (Patkar, 2016). In August 2016, the eight trained a pool of sixty-four Trainers of Trainers on Menstrual Hygiene Management and the Ministry of Health is looking into cascading the training further to various parts of Kenya. County First Ladies from ten County Governments in Kenya were crowned as Menstrual Hygiene Management Champions and have continued with high level advocacy in their respective Counties. These ten Counties are Makueni, Kilifi, Machakos, Kakamega, Kwale, Homa Bay, Kisii, Nyandarua, Vihiga and Taita Taveta (Patkar, 2016). For three years in a row, Kenya has celebrated the Menstrual Hygiene Day held annually on May 28th, a day that has already created the much-needed advocacy on issues surrounding menstruation and its effective management.

2.6: Social and infrastructure support systems about menstruation within family context

Several research studies have stated that menstruation has been regarded as a taboo topic in many cultures and its management has been shrouded in mystery and secrecy, not to be seen, discussed or acknowledged (Schooler, Ward, Merriwether, & Caruthers, 2005). Menstruation is surrounded by shame, secrecy, embarrassment, fear, humiliation, silence, taboo and stigma (Winkler & Roaf, 2013). The low-priority given to menstruation has made it to become a non-issue at policy levels. The silence surrounding menstruation prevents girls from unleashing their full potential to achieve gender equality (Winkler & Roaf, 2015) and sharing their intimacy as human persons within the society.

According to (Phillips-Howard, et al., 2016), there is evidence to suggest that the insufficient social support systems, lack of gender equality and social and hygiene taboos surrounding menstruation in numerous low and middle-income countries (LMIC) leave the adolescent girls with very few choices to choose from in order to cope with their menstruation. This is a monthly struggle for the adolescent girls.

Prazak (2015) observed that the Kuria community in Kenya is a Bantu community that practices female genital mutilation (FGM). With the onset of menstruation, girls were immediately married off by their parents because the conjugal experience was confined to married couples only. This was to avoid pre-marital teenage pregnancy within the Kuria community.

2.7: Infrastructural support systems about menstruation within school context

Sommer (2013) discovered that there are eight structural and environmental factors, both physical and social, that affect adolescent girls' school attendance during menstruation, health, well-being and dignity. These eight factors included lack of services and sanitation systems, e.g. poorly equipped latrines/toilets with no water, lack of accessible water near the latrines; teachers with no relevant skills and competence to teach reproductive health, especially menstruation; lack of adequate dormitories with structural mechanisms to create an enabling environment for the adolescent girls to attend to their menses with minimal interruptions. A fifth factor is insufficient systems for the disposal of used menstrual materials within the school compounds. The distance between the classrooms and the pit latrines or the dormitories was big. A sixth factor is the composition of the school faculty and staff: the majority of administrative staff is male. A male administrator will not naturally consider structural factors for menstruating adolescent girls during design and planning. This is because that is the human nature of the male human person. Research indicates that there are more male teachers than the female teachers in secondary schools. The seventh factor is the mode of school discipline if it involves caning on the backside. If a menstruating girl is caned on her backside (canning is forbidden in Kenya) her menstrual cloth might drop out. The dropping of the menstrual cloth would create great shame and embarrassment to the adolescent girls and their girlhood dignity would be bruised. The eighth factor is the strict school policies that strongly discourage unprofessional interaction between

male teachers and female students. Tanzanian schools have a strict dress code, especially for female students. Jewelry and long hair are prohibited in schools.

Schools in low-income countries (LICs) lack sufficient latrines and maintaining high levels of water and sanitation hygiene is a big challenge for schools. It was suggested that LICs should build structurally sound and menstruation-appropriate pit latrines in schools so that the adolescent girls can attend to their menses in a dignified manner. (Oduor, *et al.*, 2015).

2.8: Environmental factors surrounding the menstrual event on academic performance

Some of the challenges that rural adolescent girls face during menstruation include practical factors. These include embarrassment and low self-esteem, deliberate conditional information regarding menstruation, fear of leakage, fear caused by cultural myths, lack of prior and adequate information regarding menstrual hygiene management, lack of privacy and space to change used sanitary ware, lack of adequate water and soap for bathing and washing of menstrual materials, dirty and unlabeled latrines, pit latrines that do not have doors; very few pit latrines that have lockable doors, lack of hygienic and cleansing materials, lack of suitable places to dry reusable menstrual materials and lack of access to pain relief drugs and leakage from poor-quality menstrual materials (Kamath, *et al.*, 2013; WEDC, 2012; Winkler & Roaf, 2013; Diorio & Munro, 2000).

In conclusion, accepting menstruation as a natural phenomenon of life will help the adolescent girls' schools create a positive and enabling environment for them to manage their menstruation adequately without shame, fear or embarrassment but with dignity and female pride because these are natural to the persons of the adolescent girls (Mimbi, 2007; Adler, 1952; 1961). This is their nature as human beings and there is nothing that they can do to remove or change this fact of life.

2.9: Conceptual Framework

The Dependent Variable in the Conceptual Framework is Academic Outcomes (see Fig. 1). The Independent Variables comprise the three objectives of this study, namely,

hygiene management facilities at home, hygiene management facilities at school, environmental factors at home and at school.

The Moderating Variable is the girls' need of intimacy to manage the menstruation event. If the school environment is not conducive, the adolescent girls will find ways of missing school duties or finding refuge at home. In all cases, if it happens often, the end result could have a negative effect on their academic progress.

From this point of view, the Dependent Variable could be a manifestation of a deeper problem: high absenteeism and poor academic performance could reflect lack of recognition of the female human dignity.

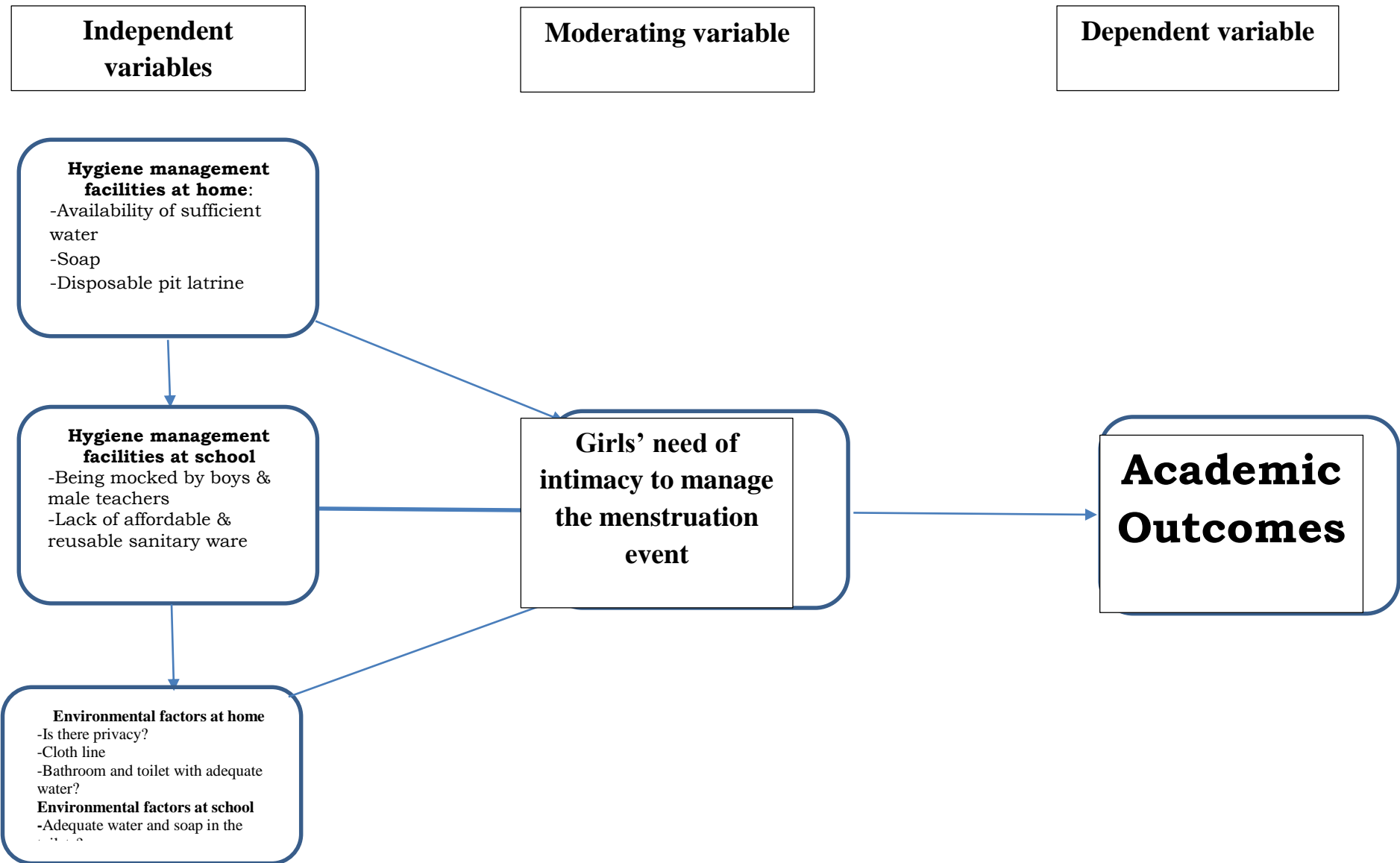


Figure 2.1: Conceptual Framework

Source Researcher Osea, J. 2017

Chapter Three: Research Methodology

3.0 Introduction

Chapter three describes the procedure and methods that were used in the study to satisfy the three objectives identified in chapter one. This chapter covers the research design, the population, the sample and sample design that were used, data collection instruments, data analysis, presentation and the time-frame.

3.1 Case Study Research Design

A case study attempts to describe a unit in text, contextually and holistically (Orodho & Kombo, 2002). The researcher used Mixed Methods Research Approach to collect data from questionnaires and focus group discussions. The researcher conducted research using the Convergent Parallel Research Design with a focus on Kuria East and Kuria West Sub-Counties.

The Convergent Parallel Research Design comprises the collection of both quantitative and qualitative data (Creswell, 2014). The data is then analyzed separately and the results compared to see if the findings confirm or disagree with each other. It is important to note that this Design comprises both the quantitative and qualitative data which provide different types of information, for example, detailed views and opinions of respondents qualitatively and scores on instruments quantitatively. This Design requires that the researcher collects both forms of data using the same or parallel variables or concepts. For example, if the concept of self-esteem is being measured quantitatively, the same concept is asked during the qualitative data collection process. Another aspect that the researcher should take note of is that the data for the qualitative data collection will be smaller than that for the quantitative data collection.

3.2 Research Site

Since this research is a mixed methods case study, the researcher identified two purposely selected research sites, namely, Kuria East and Kuria West Sub-Counties of Migori County.

Migori County has a population of 1,116,365 inhabitants. Migori County was chosen for this study because the Kuria community in Kenya resides in this County. Kuria East Sub-County was chosen as a research site because it has the highest population in

Migori County, i.e. 207,105 inhabitants. Kuria West Sub-County has the lowest population, i.e. 118,559 inhabitants (KNBS, 2009).

3.3 The Population

Population refers to the larger group from which the population sample is derived (Kombo & Tromp, 2013). The population of the study were Form 2 and Form 4 female students from three public secondary schools, two from Kuria East and one from Kuria West Sub-Counties. The age bracket of the target group was between 14 – 19 years.

3.4 Sampling and Sampling Design

The researcher purposefully selected Kwibancha Girls, Nyaroha Girls and Taranganya Girls Secondary schools, respectively. Purposeful selection of at least 50 girls were sampled from each of the sampling locations. According to (Creswell, 2014), in order to get valid and reliable data, it is important for the researcher, at his or her justifiable discretion, to focus specifically and select a sizeable sample that best informs the research. Therefore, the researcher adopts quota purposive sampling technique in four stages. As shown in Table 3.1 below:

Sampling Stages			
1 st stage	2 nd stage	3 rd Stage	4 th Stage
Location (purposefully selected)	Schools (purposefully selected)	Purposeful selection of Size	Randomized selection of sample size (from the approximated school population)
Kuria East:	Kwibancha Girls	50	50 (from population of 235)
Kuria East:	Nyaroha Girls	51	51 (from population of 458)
Kuria West:	Taranganya Girls	50	50 (from population of 540)
Total			151

Table 3.1 Sampling of the research respondents

The number of FGD for this study was thirty (30) with five participants each from Form 2 in the three schools and five participants each from Form 4. That is, ten (10) participants from Kwibancha, ten participants from Nyaroha, and ten participants from Taranganya. Therefore, the total number of the FGD participants was 30 adolescent high school students.

3.5 Data Collection Tools

Brace (2013) stated that it is recommended to always pilot the questionnaire before the survey goes live. This is because testing the data collection tool is an essential step. Unfortunately, the researcher had an accident at the workplace on February 16, 2017 and was unable to pilot the questionnaire before the survey went live. The study adopted questionnaire tools for female students and conducted focus group discussions (FGDs) amongst the female students in Form 2 and Form 4 to aid substantive collection of data required. The questionnaires were administered to the randomly selected girls aged between 14 and 17 years while the focus group discussions were conducted on 30 girls aged between 17 and 19 years. This is because the girls participating in the FGDs are older and may engage in an objective discussion. The questionnaires were formulated based on the three objectives. An Introductory part covered the background to the study. Section 1 comprised the age brackets of the respondents. While Section 2 was sub-sectioned into three parts: part A covered the data for objective one, part B covered the data for objective two and part C focused on data for objective three.

3.6 Data Collection Procedure

Permission to conduct the study was sought from the School of Humanities and Social Sciences at Strathmore University. The questionnaires were self-administered by the respondents and upon completion, were collected by the researcher. The focus group discussions were recorded on a digital tape recorder. After the discussions, the researcher transcribed the recorded tapes.

3.7 Data Analysis and Presentation

Questionnaires from the field were coded and checked for errors and omissions. Qualitative data was thematically analyzed; where themes were based on the emerging issues from the focus group discussions. The qualitative data output was presented in the form of narrative text.

3.8 Research Quality and Validity

Research quality and validity refers to the methods used by the researcher to determine the accuracy of the research findings. The researcher addressed the question of research quality and validity by the use of mixed research methods (Creswell, 2014). There are two types of threats to validity namely: (a) internal threats and (b) external threats.

Internal validity threats are experimental procedures, treatments or experiences of the participants that threaten the researcher's ability to draw correct inferences from the data. On the other hand, external validity threats occur when experimenters draw incorrect inferences from the sample data to other persons, other settings or past or future scenarios (Creswell, 2014).

3.9 Ethical Considerations

The researcher obtained written permission from the School of Humanities and Social Sciences of Strathmore University to conduct research in Kuria East and Kuria West Sub-Counties of Migori County. Confidentiality was of critical importance. In this regard, the adolescent girls were assured of strict confidentiality of the information that they shared and that the information is solely for research purposes only.

3.10 Time schedule

The time schedule for this study was March 2017.

Chapter Four: Presentation of Research Findings

4.0 Introduction

This chapter provides a presentation of data collected from the field and further makes an analysis on academic representation of what the researcher found. The data presented covered sequentially the objective of the study with respect to the various study locations where the data were collected. Furthermore, there will be comparative analysis of data among the three study locations.

4.1 Demographics

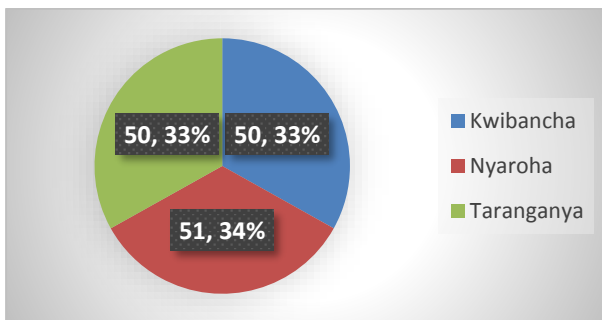


Figure 4.1: Summary of the respondents' sample

The respondents sample size was 151; 50 (33% of the total respondents) from Kwibancha, 51 (34% of the total respondents) from Nyaroha, and 50 (33% of the total respondents) from Taranganya.

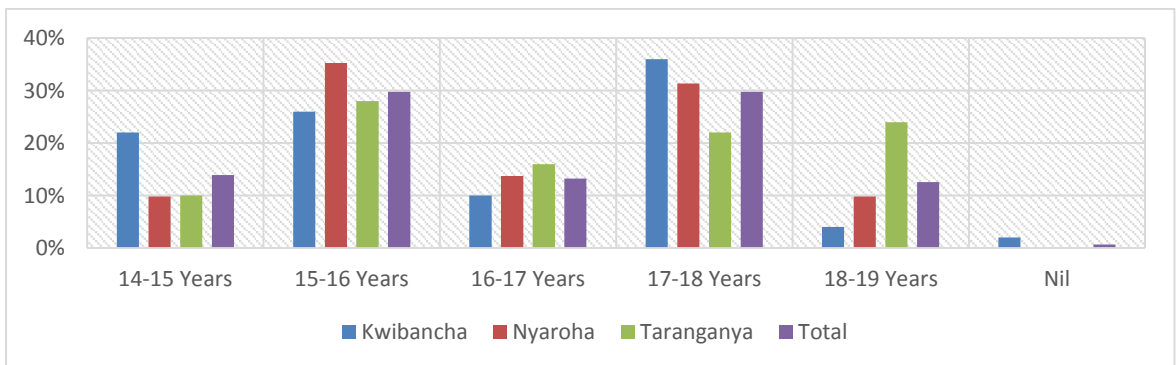


Figure 4.2 Age of respondents

Out of the total respondents: 30% were aged 15-16 years (majority 12% from Nyaroha), 30% were aged 17-18 years (majority 12% from Kwibancha), 14% were aged 14-15 years (majority 7% from Kwibancha), 13% were aged 16-17years, 13% aged 18-19 years (majority 8% from Taranganya).

Within respective study locations: most of the respondents (36%) within Kwibancha were 17-18years; 35% within Nyaroha were 15-16 years; and 28% within Taranganya were 15-16 years. The mean age of the respondents is 16 years.

4.2 Social and infrastructure support systems about the menstrual event within the family context

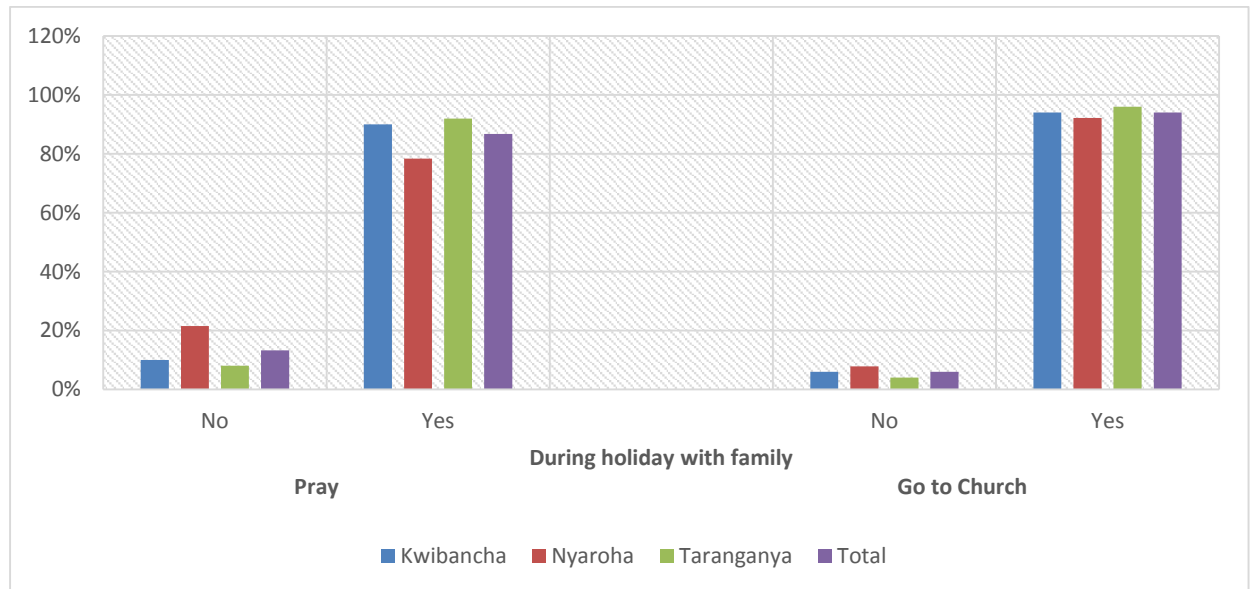


Figure 4.3 Religious activeness of respondents

Out of the total respondents: 87% stated that they pray with family during holidays (30% majority each from Kwibancha and Taranganya) while 13% said they do not pray (7% majority from Nyaroha). 94% stated that they go to church (majority 32% from Taranganya) while 6% said they do not (majority 3% from Nyaroha). (Mejos, 2007)

Within the study locations, majority of the respondents pray, (92%) within Taranganya 90% within Kwibancha, and 78% within Nyaroha. Also, majority goes to church, 96% within Taranganya, 94% within Kwibancha and 92% within Nyaroha. This underscores the Karol Wojtyla's Theory of Participation that the human person's fulfillment requires an active interaction with the community or society in which he or she lives in. This is because first of all, the human person is a social being and secondly because being in communion with the society forms man as a human person. The human person possesses spiritual perfectibility and is therefore an embodied spirit, a composite being comprising both a body and a soul (Mejos, 2007).

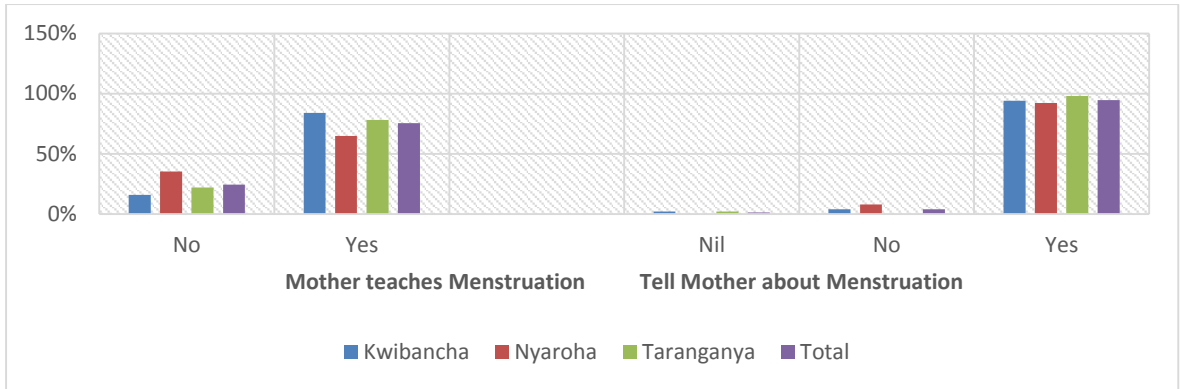


Figure 4.4 Mother to daughter communication on menstruation

Out of the total respondents: majority (75%) were taught menstruation by their mothers most of whom (28%) were from Kwibancha; of the 25% that stated they were not taught by their mothers, most (12%) were from Nyaroha. Majority 68% told their mothers about their menstruation (most of whom, 25% were from Taranganya), whereas 28% did not tell their mothers about their menstruation (mostly, 12% from Nyaroha) and 4% did not answer the question.

Within the locations: majority 84% within Kwibancha were taught by their mother, 78% within Taranganya, and 65% within Nyaroha. Also, most of the respondents within Taranganya (98%), Kwibancha (94%), and Nyaroha (92%) told their mother about their menstruation.

Crichton, Ibisomi, & Gyimah, (2010) assert that while there is increased widely-held perception that mothers should communicate with their daughters on sexual matters, there are still many girls who do not discuss menstruation with their parents. On the other hand, the data in this study indicates that 25% of high school girls received menstrual guidance from their mothers.

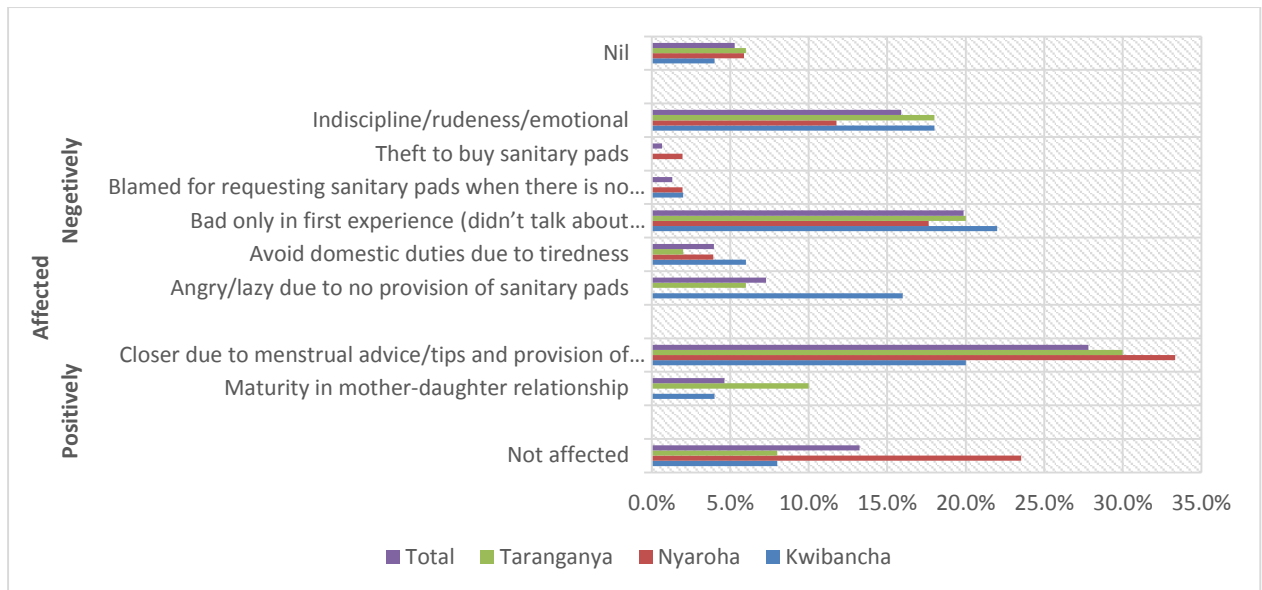


Figure 4.5 Monthly menstruation affects relationship between mother and daughter

The minority 13% of the total respondents stated that mother-daughter relationship is not affected during their monthly menstruation, and 5% (Nil) of the total respondents did not respond to the question. Majority 87% of the respondents stated that the relationship is affected as identified in the following respondents' categorized responses: a) negatively (54%): bad only in first experience (didn't talk about it/shy/afraid of being laughed at/negative comments) (20%), blamed for requesting sanitary pads when there is no money (1%), indiscipline/rudeness/emotional (16%), angry and lazy due to no provision of sanitary pads (7%), avoid domestic duties due to tiredness(4%), and theft to buy sanitary pads (1%); and b) positively (33%): closer due to menstrual advice/tips and provision of sanitary pads (28%), and maturity in mother-daughter relationship (5%).

One of the discussants in the FGD conducted in Kwibancha (KG2, Form 2) stated that:

"I can say that the one who supported me first when I first had my menstruation was my sister who lent me some money and bought some pads".

Also, in the FGD conducted in Nyaroha (NG4, Form 2):

"When I had my first menstruation, I was in class 8 and the person who assisted me was my sister, my elder sister. Yes, I had no problems because we had taken some studies from class now I knew it (menstruation) was just a normal thing"

And in Taranganya (TG2, Form 4):

“My first menstruation I was in boarding school and I had my elder sister whom I went and told the problem that had occurred (menstruation) and she helped me and told me how to control myself and how to use the pads because she had them”.

This confirms the experience of high school girls not able to talk about their menses during first experience. One of the form four FGD participants in Kwibancha (KG4, Form 4) recounted that:

“I was at home. I was preparing to come in school. So, when I saw it (menstruation), I told my Aunt and she taught me how to use those pads, but when I was in school, I was just afraid. I don't know anything. Now even the pads my Aunt showed me but I didn't know that much so my friend used to help me, encouraging me.”

This reveals from both the Form Two and Form Four FGD that high school girls may easily share their menstrual experience with other close relatives apart from their mother.

Majority of the respondents within the study locations identified: both bad relationship only in first experience (didn't talk about it/shy/afraid of been laughed at/negative comments) (22%) and closer due to menstrual advice/tips and provision of sanitary pads (20%) within Kwibancha; closer due to menstrual advice/tips and provision of sanitary pads (33%) and not affected (23%) within Nyaroha; closer due to menstrual advice/tips and provision of sanitary pads (30%) and bad only in first experience (did not talk about it/shy/afraid of being laughed at/negative comments) (20%) within Taranganya.

While 8% accounted for negative relationships due to no sanitary pads, the larger 20% that do not tell their mother during their first menses may have also lacked access to healthy sanitary items. This reveals that the first menstrual experience of high school girls is usually not communicated or talked about by the girls; thus, high likelihood of not been hygienically prepared, and thus increased chances to use sanitary items that are unhealthy. This confirms the assertion that girls are likely to use unsafe material to manage their menses when they lack access to safe and hygienic sanitary products (Wilson, Reeve, Pitt, Sully, & Julious, 2012) and (McMahon, et al., 2011)).

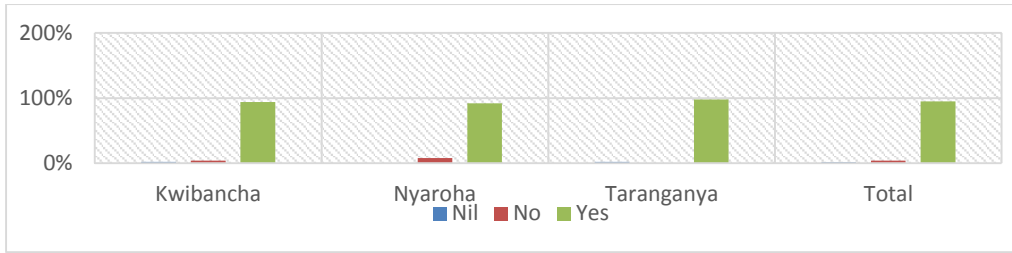


Figure 4.6 Marital status of respondents' parents

Majority (95%) of the total respondents' parents are married (most 32%, of whom are from Taranganya), while most of those unmarried (4%) are from Nyaroha. Within the study locations: majority 98% within Taranganya indicated having parents who are still married; 94% within Kwibancha; and 92% within Nyaroha.

Majority of the high school girls have parents who are married; this gives a good opportunity for parents to attend more to the sexual and menstrual needs and advice that the adolescent girl requires.

While 54% of the high school girls indicated less dignifying experience of menstrual period like conflict with domestic duties and lack of sanitary items; same majority of the high school girls are conscious during their stay at home on holidays, communicate with any of their relations on their menstrual issues and are advised by their mothers which increases their sense of belonging and dignity.

4.3 Social and infrastructure support systems about the menstrual event within the school context

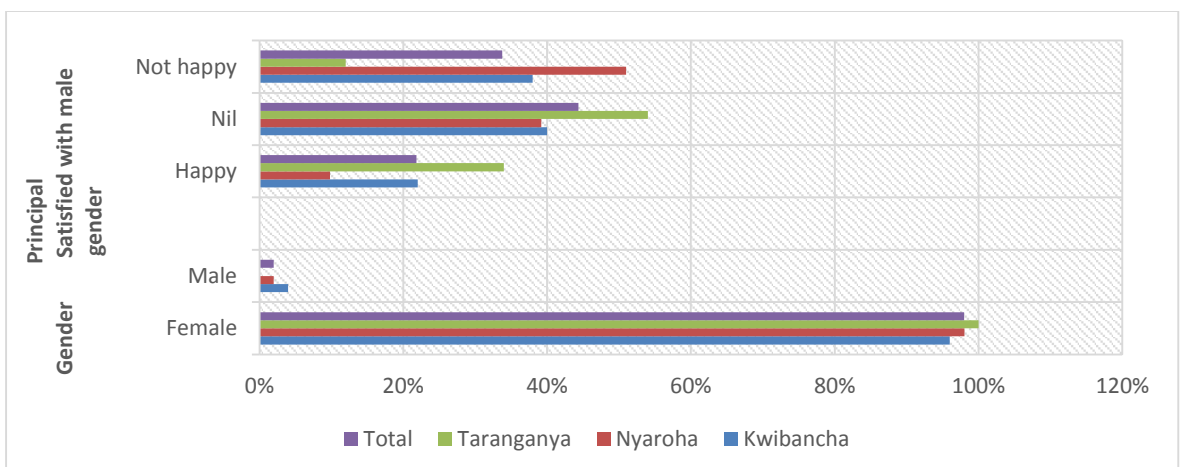


Figure 4.7 Gender of respondents' principal

The gender of the three school heads was female. The preference of the high school girls in having a female teacher/principal was recounted by one of the FGD participants giving an instance where a female teacher will understand and be empathic more than a male teacher. She (KG5, Form 4) stated that:

“...at a time, I didn't have pad and when I asked my friends, they said they have run out of theirs too. So, I decided to stay at the dormitory and not ask someone else. I just slept in the dormitory all through that day. The next day I went to the teacher and I explained to her now she bought for me (pads)”.

Also, one of the FGD participants stated that (TG4, Form 4):

“When I saw my first menstruation, I was in Class 6. I was crying. So, my class teacher asked me why I was crying. Then she consoled me and provided me with pads for that first day (of menstruation) then she showed me how to use those things”.

Majority of high school girls have head teachers that are female; this makes it easier for understanding of gender, and easier for the student to confide in their teachers without the fear of being embarrassed or ashamed. And thus, reducing the risk and exposure to sexual exploitation; and increase in the sense of human dignity and sharing of their intimacy by the high school girls.

Form Two FGD in Kwibancha revealed that high school girls feel comfortable to talk about their menses to their sisters at home than their mum; and also talk to their best friends in schools than their teachers. (KG, Form 2)

One of the Form Four FGD participant in Kwibancha (KG4, Form 4) recounted that, within the school environment, menstrual issues are easily communicated to peers and friends than the teacher:

“The person who supported me was my best friend who had already started to menstruation. So, she started advising me. She told me that that was obvious because at that time I did not know anything...”

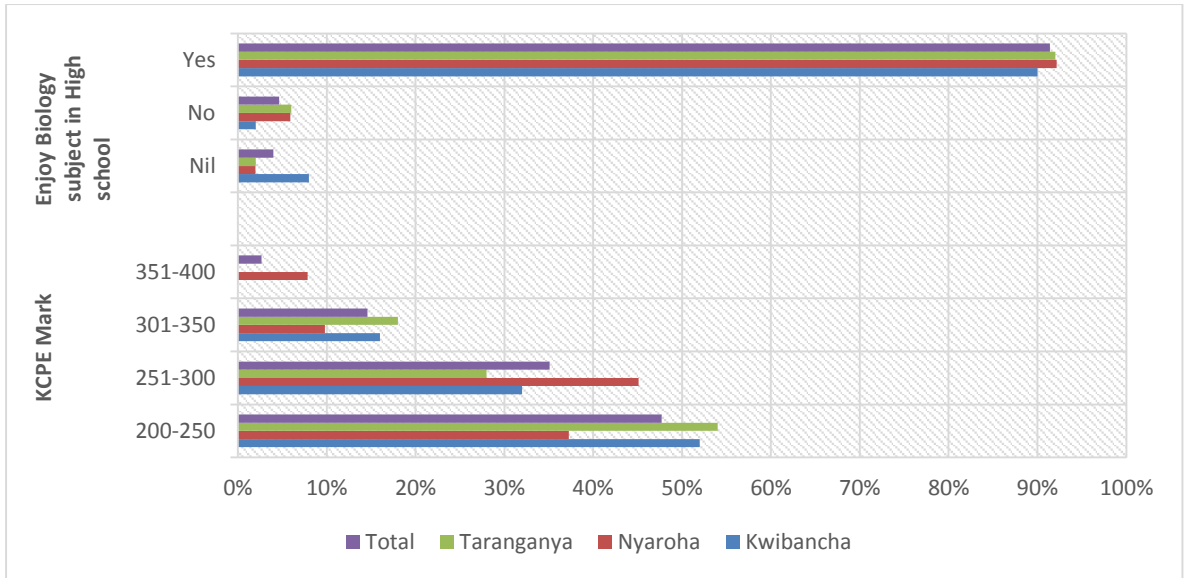


Figure 4.8 Respondents' KCPE Mark and Biology subject in high school

Majority 48% of the respondents had 200-250 KCPE score (mostly, 18% from Taranganya), 35% scored 251-300 (mostly, 15% from Nyaroha), 15% scored 301-350 (mostly, 6% from Taranganya), and 3% scored 351-400 (3% from Nyaroha). Within respective study locations, majority 54% within Taranganya and 52% within Kwibancha scored 200-250, and majority 45% within Nyaroha scored 251-300. The mean KCPE mark of the total respondents and those that responded is 261.

Majority (91%) of the total respondents enjoys biology subject in their school, 5% do not enjoy biology and 4% did not answer the question. Within the study locations: majority of the respondents enjoy biology subject (92% within Taranganya, 92% within Nyaroha, and 90% within Kwibancha) while minority do not enjoy (6% within Taranganya, 6% within Nyaroha, 2% within Kwibancha).

Most of the high school girls enjoys studying biology. This facilitates a good understanding of how the female body works and gives them insight on the best way to be clean. About 50% of the high school girls have an average KCPE score of 300. This indicates the capacity of the high school girls who have a good chance to excel in their studies if the school environment is conducive enough, especially during the uneasy times of menstrual period.

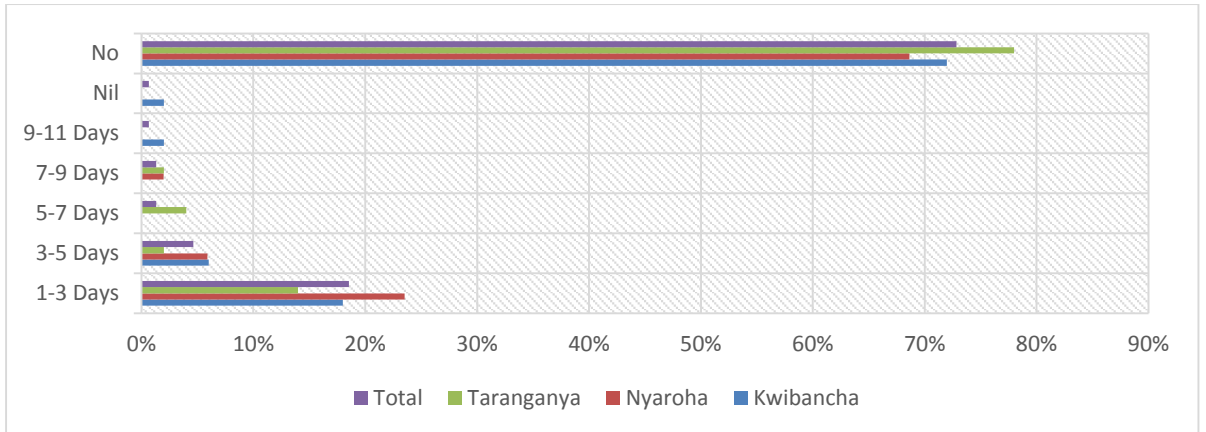


Figure 4.9 Respondents who are in boarding-Sudent missed classes due to menstruation

Majority of the respondents (73%) who are in boarding school indicated they have not missed classes because of menstruation while 1% did not respond to the question. Out of the 26% of the respondents that indicated to have missed classes: 19% missed between 1-3 days (mostly from Nyaroha, 8%); 5% between 3-5days; 1% between 5-7 days; and 1% between 7-9 days. Majority within respective study locations have not missed classes while minority have: 78% within Taranganya, 72% within Kwibancha and 68% within Nyaroha. The mean of class missed by the total respondents (151) that are boarding students is 1-day. However, the actual mean among those who responded (40) is 3 days. This is 2 days less of the national figure of an approximately 5 days per month as researched by Muvea, (2011) and Afripads (2013).

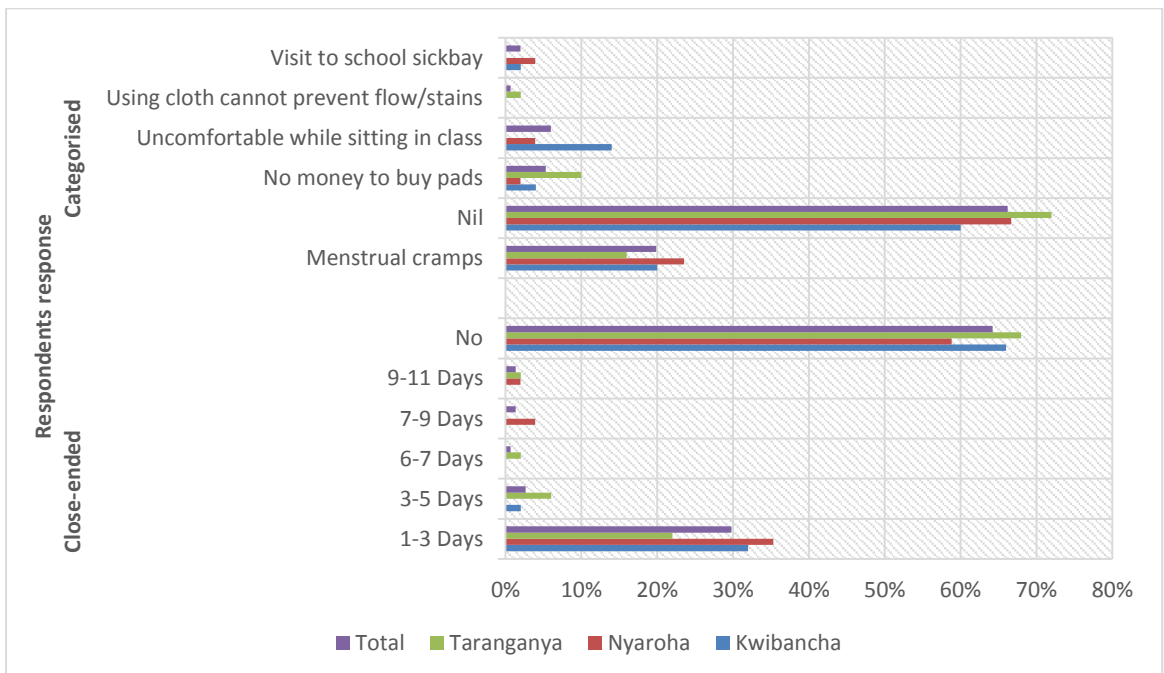


Figure 4.10 Respondents who are day-student missed classes due to menstruation

Majority of the total respondents 64%, those going to school from home stated they have not missed class (mostly from Taranganya, 23%) while 36% indicated to have missed (mostly from Nyaroha, 14%). The mean of class missed by the total respondents (151 responses) that are day-students is 1 day. However, the actual mean among those who responded (54 responses) with categorized number of days is 3 days per month. This is 2 days less of the national figure of an approximately 5 days per month as researched by (Muvea, 2011) and (Afripads, 2013).

Within the study locations: majority 35% within Nyaroha, 32% within Kwibancha, and 22% Taranganya stated to have missed 1-3 days; 4% Nyaroha stated to have missed 7-9 days; and 6% Taranganya stated to have missed 3-5 days.

In an explanatory response on why the respondents missed classes: 66% of the total respondents gave no reason (this is because majority, 64% of the total respondents indicated they have not missed classes); while 34% gave reasons.

The reasons the respondents gave as to why they miss classes during their menstruation includes: menstrual cramps (20%); uncomfortable while sitting in class (6%); no money to buy pads (5%); frequent visit to school sickbay (2%); using cloth which cannot prevent flow/stains (1%). Within the study locations: majority within Nyaroha (8%) complained of menstrual cramps; menstrual cramp and discomfort while sitting in class within Kwibancha (7% and 5%); menstrual cramps and no money to buy pads within Taranganya (5% and 3%).

Majority of the high school girls either enrolled in boarding or day have not missed classes due to menstruation. This was confirmed by the form two FGD participants in Kwibancha (*KG, Form 2*).

Figures from the two figures above shows that 26% of those in boarding school miss classes due to menstruation while 36% of those in day school miss classes. Also, in the boarding student category, 40 out of 151 indicated to have missed classes while 54 out of 151 missed classes in the day-student category. This is an assumption that within the study locations, 4 out of every 15 boarding-students are likely to miss classes every month due to menstruation while 5 out of 15 day-students are likely to miss classes monthly. This figure is alarming compared to 1 out of every 10 in Africa as researched by (McNaughton, 2011).

Thus, it is confirmed that day-students, i.e. those staying off school campus, are more likely to miss classes due to menstruation than the boarding-students, i.e. those staying in school dormitories. This confirms the argument by Kamath, et al., (2013) and Sommer, (2013) that girls who attend school from home are likely to miss classes during their menses because they prefer and feel comfortable with their relatives and family, and are less stressed than those who are likely to find no comfort at the hands of the teachers, most of whom are male, and guidance within the school and dormitories.

One of the FGD participants (KG5, Form 4) confirmed the less social comfort within the school environment. Stating that:

“Maybe to add, there is sometimes that it reaches a time somebody does not have the pads to use. Now that affects you because you will not go to attend to class for example you might even fear to ask your friend pads because the others may tell you that I don’t have, others may tell you “Why didn’t you buy when you were coming to school?” Now you will not go to class. You will just remain in the dormitory; you experience after that then you return to class”

The boarding-student and day-student both have a mean number of missed school days as 3 days. Thus, a girl missing classes 4 days per month will miss 10-20% of her school days (Mooijman, van den Berg, Jensen, & Bundy, 2005) and (Tjon A. T., 2007); considering they miss 3 days in every month, girls from the study location will miss an estimated 8-18% of their school days¹.

With reference to human dignity and menstrual health, the infrastructural settings within the school system makes the high school girls feel more humanly-dignified when relating with their female teachers. And less dignified due to lack of sanitary provisions thus affecting their academics as signified by Adler’s (1961) explanation of higher-level of interest.

Additionally, the FGD discussants across Taranganya, Nyaroha and Kwibanacha revealed that the method of sanitary waste disposal is dumping into pit latrine; while

¹ Calculable:
4days=30 (sum of 10+20%)=10 (difference of 20 and 10); thus 3days=x (sum of) =10 (difference of);
since x is 3*30 divide by 4 equal 22.5; therefore 3=22.5 (sum of 7.5 + 17.5) = 10 difference of (17.5 and 10)

those in Kwibancha stated that the latrine is located away from the classrooms, those in both Taranganya and Nyaroha indicated those pit latrines are closer to the classrooms. This confirms an ignored human dignity through the challenging toiletry health conditions and hindered privacy that affects the adolescent girls' academic success, health and well-being as outlined by (Sommer, Overcoming the Taboo: Advancing the Global Agenda for Menstrual Hygiene Management for Schoolgirls, 2013).

The idea of disposal method for sanitary waste disposal is by firstly, folding the used pad inwards, secondly, wrapping the used pad with a paper usually newspaper, thirdly, dumping in proper waste bin or dumping pit (not latrine pit), and lastly, washing of hands. Out of all the FGD participants, only one of the discussant could make a statement that is close to the proper way to prepare a used sanitary pad before disposal (TG5, Form 4):

“After I have used those sanitary towels...I have to take that paper in which the pads were wrapped then I wrap them and throw in the toilet”.

4.4 Effect of environmental factors surrounding the menstrual event in the academic performance of high school girls

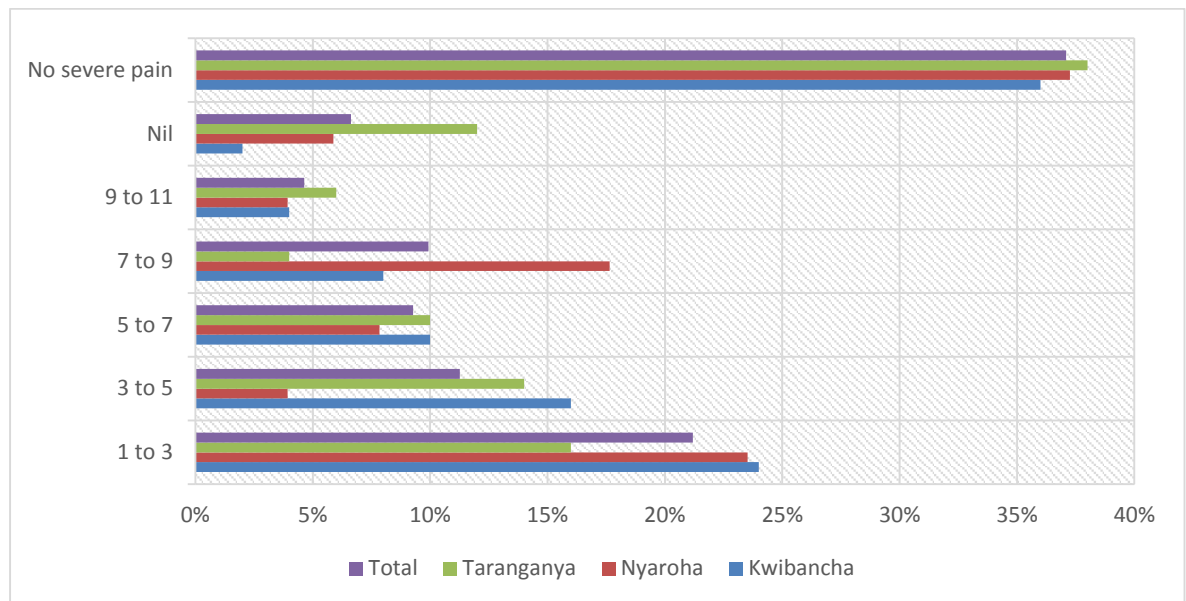


Figure 4.11 Scale of severe menstrual pain (1-10) of respondents during first menstrual experience

Most of the total respondents 56% (most of whom, 21% were from Kwibancha) indicated that they have severe menstrual pain spread across a scale of 1-10 from less severe to most severe. 21% of the total respondents have severe pain on a scale of 1-3 (most of whom, 8% each were from Kwibancha and Nyaroha, respectively); 11% have pain scale 3-5 (most of whom, 5% each were from Kwibancha and Taranganya); 9% have pain scale 5-7 (equally distributed from the 3 study locations); 10% have pain scale 7-9 (most of whom, 6% were Nyaroha); 5% have pain scale 9-11 (2% were from Taranganya). The mean of the scale of severe menstrual pain by the total respondents (151 respondents) is pain scale mid-point of 3. However, the actual mean among those that responded (85 respondents) is pain scale mid-point 5.

Within the study locations: majority within Kwibancha 24% and 16%, have pain scale of 1-3 and 3-5, respectively; within Nyaroha 24% and 18%, have pain scale of 1-3 and 7-9 respectively; and within Taranganya 16% and 14%, have pain scale of 1-3 and 3-5, respectively.

The menstrual pain of over half of the high school girls is severe thus not giving them an ample opportunity to study. Those pains are likely to affect the academics and daily functions of the girls. A worrying number of about 15% usually have severe pains closer

to the peak of the scale. This draws an attention of the need to assist those girls, most of whom are from Nyaroha.

The FGD from Kwibanacha (*KG Form 4*) stated that environmental change has effect on the level of stress and menstrual pain that a girl might experience:

“Stress can lead to that. For example, we had a colleague from Turkana. When she was in college, she would experience her menstruation but when she goes back home in Turkana, it disappears. You see, this is because of change of environment, it affects. You see this our bodies are different. Ladies have different and unique morphology. There are some ladies who experience menstruation for seven days, others three days. We are all different and unique.”

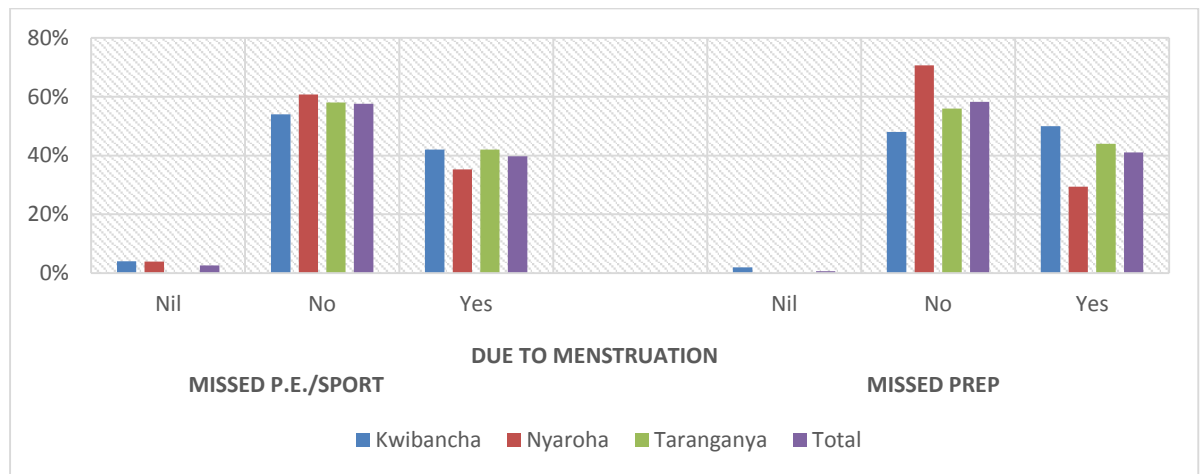


Figure 4.12 Respondents missed physical education or sports and prep due to menstruation

Majority of the total respondents 58% (mostly from Nyaroha, 21%) do not miss physical education or sports during their menstrual period while 40% misses (mostly from Kwibanacha and Taranganya, 14% and 14%). Within the study location: majority 42% within Kwibanacha, 42% within Taranganya and 35% within Nyaroha do not miss physical education or sports.

Majority of the total respondents 58% (mostly from Nyaroha, 24%) do not miss prep studies during their menstrual period while 41% miss (mostly from Kwibanacha, 17%). Within the study location: majority 50% within Kwibanacha and 44% within Taranganya do not miss prep while 71% within Nyaroha miss.

Almost half of the high school girls miss both physical education/sport and prep studies during their menstrual periods. This is an indication that the high school girls have less sanitary/menstrual products to keep them at active in school.

An FGD discussant in Taranganya (TG5, Form 4) stated that:

“Sometimes for the first two days (of menstruation), I overflow”. So that one affects me to concentrate with the others even when they go for P.E. or games, I was not participating.

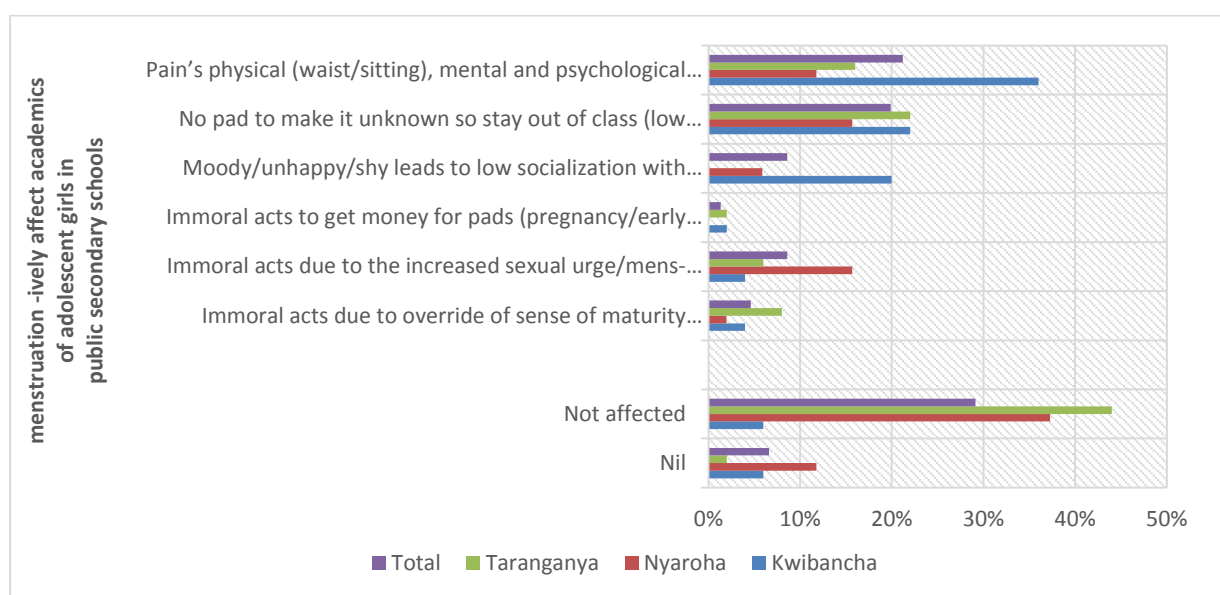


Figure 4.13 Menstruation negatively affect academics of adolescent girls in rural public secondary schools

The minority 29% of the total respondents stated that menstruation does not negatively affect adolescent girls in rural public secondary schools (mostly, 13% from Taranganya) while 7% did not respond to the question (mostly, 4% from Nyaroha). Majority 64% of the total respondents (mostly, 29% from Kwibancha) stated with reasons that menstruation negatively affects academics of adolescent rural public secondary school girls.

Those reasons were identified as: a) general pains which have physical (in the waist and while sitting in class), mental and psychological effect on academics (21%; and mostly from Kwibancha); b) no pad to conceal menstruation, thus increases staying out of class which leads to low performance/grade/poor chances of further studies (20% and mostly from Kwibancha and Taranganya); c) immoral acts due to the increased sexual urge and the general idea that pregnancy do not occur during menstruation

leading to pregnancy/early marriage/ drop out/ long schooling period (9%; and mostly from Nyaroha); d) moody/unhappy/shyness leading to low socialization with mates and teachers (especially males) thus resulting in less knowledge sharing (9%; and mostly from Kwibancha); e) immoral acts due to override of sense of maturity leading to pregnancy/early marriage/drop out/ long schooling period (5%; and mostly from Taranganya); f) immoral acts to get money for pads leads to pregnancy/early marriage/ drop out/ long schooling period (1%; both from Kwibancha and Taranganya).

Within the study locations, majority 88% within Kwibancha, 54% within Taranganya and 51% within Nyaroha stated that menstruation negatively affects the academics of adolescent rural public secondary school girls. Mostly, 22% indicated that no pad to conceal menstruation makes them stay out of class at Kwibancha; 16% within Nyaroha indicated that both no pad to conceal menstruation them stay out of class; and 22% at Taranganya indicated that no pad to use during menstruation makes them stay out of class.

The non-availability of pads and sanitary items to high school girls was also stressed by the Form Four students in Kwibancha.

“...They are some girls who are not able to get those pads. Their parents are not able to provide them with pads...” KG1 Form 4

Another stated that:

“...I joined Form 1 in Itongo Mixed (Secondary School) school, a school different from this school. In the former school, we were provided with 2 packets of pads per term. Now when I transferred to this school, I get that that provision is not here. Now my parents are aware that we normally used to be given pads in school. They buy me one sachet and they tell me that I will get the two pads that I am normally given. Now I am suffering from that... because I told them the truth but they say that I am lying”.

An FGD discussant (TG4, Form 4) stated that menstruation affects them academically:

“Menstruation affects academics because during that time (of menstruation) you find most of our girls in our area here or in our

schools here are feeling stomach aches, you find a girl in class, she cannot sit comfortably because of the menstrual pain; she cannot concentrate on what the teacher is teaching. And if she misses one day, that gap/miss will affect her negatively for the whole lesson that she missed what the teacher taught”.

While menstrual periods are crucial to the biological growth and existence of females; the high school girls are academically affected by the effects arising from both pain and non-provision of necessary sanitary items that would have otherwise reduced the effect of menstrual periods. Thus, there are high tendencies to have a reduced academic performance among the rural public secondary school girls while menstruating.

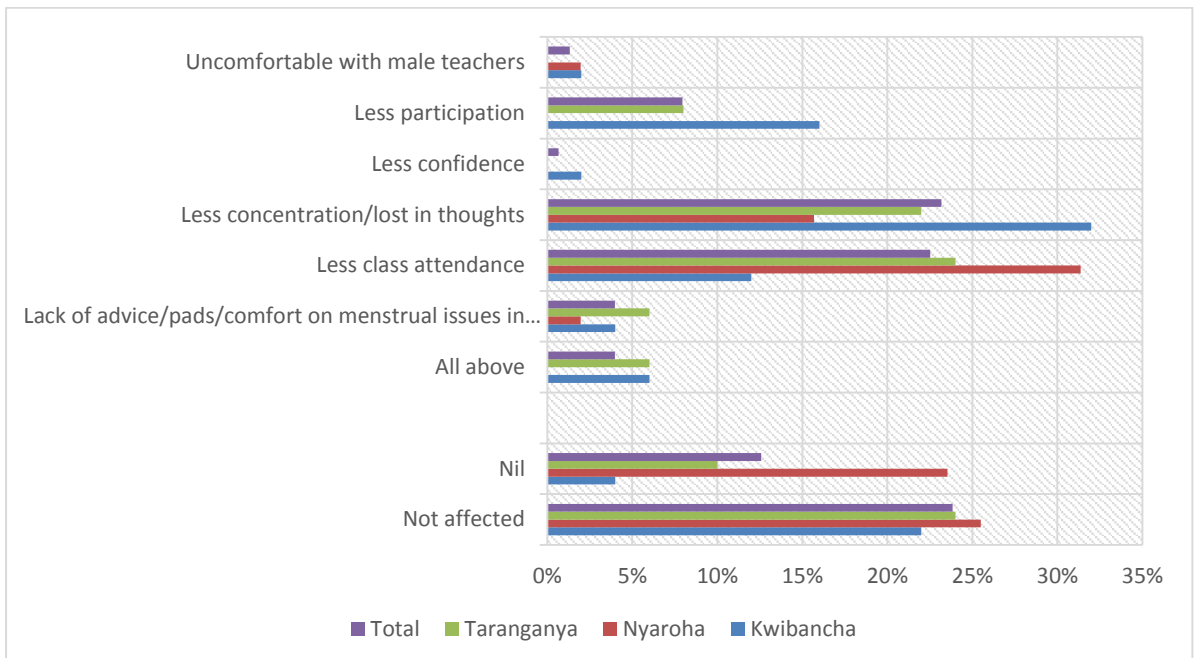


Figure 4.14 Menstruations’ academic effect on high school girls

Minority of the total 24% respondents stated that menstruation do not affect the academics of high school girls (9% mostly from Nyaroha) while 13% did not respond to the question (8% mostly from Nyaroha). Majority 64% indicated with reason that menstruation affects academics of high school girls (most of whom, 25% were from Kwibancha). The categorized reason includes: a) less class attendance (23%; and mostly from Nyaroha), b) less concentration/lost in thoughts (23%; and mostly from Kwibancha), c) less participation (8% from Kwibancha and Taranganya), d) lack of advice/pads/comfort on menstrual issues in the school (4%; and mostly from

Taranganya), e) less confidence (1% from Kwibancha), and f) uncomfortable with male teachers (1% from Kwibancha and Nyaroha).

Within the study locations: majority 32% within Kwibancha stated less concentration/lost in thoughts; 31% within Nyaroha stated less class attendance; and 24% within Taranganya stated less class attendance.

Figure 4.15 Respondents' recommendations

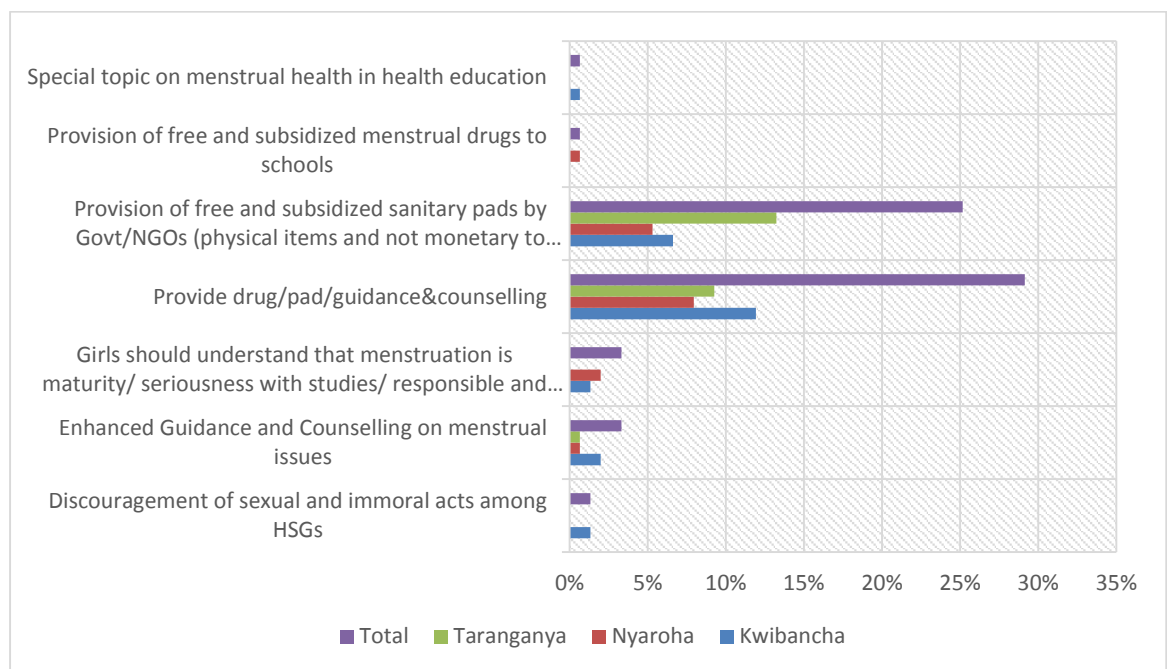


Figure 4.16 Respondents' recommendations

One of the few emphatic experiences of the research was the recount by an FGD discussant (TGI, Form 4) stating that:

Why don't you help us? Can you help us girls and other girls in this school who are from poor families, Dad cannot afford (to buy pads), Mum neither? You find a girl who cannot afford to buy pads. She stays away from school for a whole week during menstruation. She has overflowed and when you ask her, she just keeps quiet. We are asking

you to help us and provide us with sufficient sanitary towels in school so that girls can continue with their education”.

Another (TG5, Form 4) stated

“You find that there are some girls who have the problem of menstrual cramps. We are requesting if you can provide us with pain relievers/pain killer drugs and supply them in school so that our students can continue well with their academics”.

Chapter Five: Discussion

5.0 Introduction

This chapter provides a discussion with respect to each of the three study objectives, namely, to explore the social and infrastructure support systems about the menstrual event within the family context; to explore the social and infrastructure support systems about the menstrual event within the school context and to assess the effect of environmental factors surrounding the menstrual event in the academic performance of high school girls in Kuria East and Kuria West Sub-Counties of Migori County, Kenya.

5.1 Discussion

On the first objective, on the social and infrastructure support systems about the menstrual event within the family context: this study found that most of the high school respondents pray and also go to church during holidays mostly in Taranganya. Most of the high school girls were taught by their mothers about menstruation and how to manage it effectively. They also told their mothers about their first menstrual experience mostly in Kwibancha and Taranganya, respectively. Most of the high school girls identified both positive and negative effects of menstrual periods on mother-daughter relationship in Nyaroha, Kwibancha and Taranganya respectively. The negative effects which may include a frightening first menstrual experience, emotional, fearful, sad and lazy due to lack of sanitary pads, outweighs the positive effects which mainly includes being closer and ensuring a stronger bond with their mothers in order to get menstrual hygiene management advice and tips and provision of sanitary pads, and maturity in mother-daughter relationship. Most of the high school girls' parents are married, mostly in Taranganya.

With respect to objective two, on social and infrastructure support systems about the menstrual event within the school context: the study revealed that the gender of the head teacher or principal is of importance to the high school girls, all the head teachers were female. The high school girls prefer to have female teacher/ principal than a male. Most of the high school girls with average KCPE scores were from Taranganya while those with better scores were from Nyaroha. Both categories of the high school girls, namely those in boarding school and those in day school, have close to average chances of missing school during their menstrual event. The mean number of days for both

categories of students to miss school is 3 days most of whom were from Nyaroha and the least from Taranganya. The leading causes of this is due to menstrual cramps; being uncomfortable while sitting in class and no money to buy sanitary pads which facilitates less class attendance.

Regarding objective three, on the effect of environmental factors surrounding the menstrual event in the academic performance of high school girls: the study found that more than half of the high school girls have severe menstrual pain mostly those in Kwibancha having the lower severe abdominal pain while those from Nyaroha have slightly high severe abdominal pain. Most of those that do not miss preps studies or sports/PE are those from Nyaroha. The main causes of this effect among the rural public secondary school are general pains which have physical, mental and psychological effect on academics; lack of pads which reduces class attendance; and the general belief that pregnancy cannot occur during menstruation; and being moody, unhappy and shy. All these causes lead to low performance, poor grades, poor chances of further studies; pregnancy/early marriage/ drop out/ long schooling period; and low socialization with male classmates and male teachers which reduces knowledge sharing. Generally, those in high school are negatively affected in their academics mainly because they attend less classes; concentrate less in class; easily lose concentration in class; and participate less in academic activities.

Finally, the study indicated that the high school girls are supported by their parents during their menstruation because the parents or aunties provided them with money or personally bought the sanitary pads. However, it was observed that those students who are boarders miss less classes. The study observed that the academic performance of both categories of girls, that is, the boarders and the day-scholars, is still negatively affected due to less mental alertness and lack of concentration while in class during menstruation.

While there is social infrastructural support to high school girls during their menstrual period in both in-school and out-of-school settings, the role of social infrastructure within the family context have been able, to an extent, made the high school girls to continue with life and academic studies as persons with human dignity and intimacy. This is due to the reduced menstrual-comfort support in schools, school absenteeism during menstrual period and lastly openness in menstrual-communication in the school.

5.2 Summary

In conclusion, the findings affirm that girls' intimacy to manage the menstruation event and their dignity as human persons negatively affects their academic outcome due to effects from variables like hygiene management facilities at home which is featured with low psycho-social support; hygiene management facilities at school which lacks access to safe and proper sanitary waste disposal and provision of sanitary waste products; and environmental factor like privacy and adequate toilet facility, for example, sufficient water and soap, lockable toilets or pit latrines; menstrual bins within the toilets, are of significant concern.

Therefore, for there to be a) an improved academic outcome of the high school girls, and b) for the SDG goals #3, #4, #5, #6, #8, and #12, which have a component of menstrual hygiene management to be fully achieved, the study recommends that, there should be de-commercialization and non-taxation on sanitary menstrual products, provisions to reduce high school-absenteeism of high school girls, change of perception on hiding menstrual status through training, both at home and in school, on Educational Perennialism, of the adolescent girls, provision of culturally-acceptable, safe and clean facility for effective menstrual health management by the government in the school management boards in the public schools.

Chapter Six: Conclusion and Recommendations

6.0 Introduction

This chapter provides a conclusion and recommendations with respect to each of the three study objectives and based on the findings from the data presentation.

6.1 Recommendations

Based on the findings from this study, the researcher recommends the following;

- i. Menstruation is a key part of the female identity (Winkler & Roaf, 2013). Female identity is an everlasting truth that the adolescent girls must first of all accept and then internalize within their intimacy. This is because a woman's body is more united, complete and composite to her personhood because of interiority. The woman is internal and within while a man is complete but external simultaneously.
- ii. Development of a Code of Ethics: Mainstreaming Menstrual Hygiene Management by all stakeholders in Kenya. The Code of Ethics will refer to the yet to be published National Policy on Menstrual Hygiene Management for Kenya.
- iii. Community and family-facilitated campaigns to (a) to support and empower high school girls; (b) to make high school girls understand that menstruation is a natural and normal biological process experienced by adolescents and women on a monthly basis, and be responsible and confident of themselves and also in their academic studies; c) create awareness on menstrual sanitary health tips and proper ways of disposing sanitary waste.
- iv. Public secondary schools should introduce special topic on menstrual health in health education for high school girls; and enhancement of guidance and counselling on menstrual issues both at school and at home. Additionally, this study recommends the provision of proper menstrual-sanitary waste disposal, and a good toiletry facility in appropriate locations to ensure good menstrual health and privacy that protect the dignity and intimacy of adolescent high school girls.
- v. Government and Non-governmental organizations working on water, sanitation and hygiene sectors should provide free and subsidized menstrual drugs and

sanitary pads; and such provisions should be made physical and not monetary to avoid corruption by school management. As pointed out (Chebii, 2014), government should remove taxes on sanitary products. Additionally, they should facilitate guidance and counselling within public secondary schools.

The adolescent girls must first accept themselves as they are because experiencing menstruation is a natural indicator of their identity and their personhood.

6.2 Suggested areas for further studies

Based on the findings and recommendations from this study, the following areas are recommended for further studies: a) breaking the silence around menstruation; (b) assessment and approach to the management of free and subsidized sanitary products for High School girls in Kenya, especially in rural secondary schools; (c) Policies mainstreaming menstrual hygiene management in Kenya for the common good of rural secondary adolescent girls; d) Menstrual waste generation rate, disposal and hygiene in Public Secondary Schools in Kenya;.

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Appendix I: List of Focus Group Discussion Participants

KG1, Form 4	KG, Form 4 FGD Participant 1 aged 17 years old
KG2, Form 4	KG, Form 4 FGD Participant 2 aged 17 years old
KG3, Form 4	KG, Form 4 FGD Participant 3 aged 18 years old
KG4, Form 4	KG, Form 4 FGD Participant 4 aged 18 years old
KG5, Form 4	KG, Form 4 FGD Participant 5 aged 17 years old
KG1, Form 2	KG, Form 2 FGD Participant 1 <i>did not state age</i>
KG2, Form 2	KG, Form 2 FGD Participant 2 <i>did not state age</i>
KG3, Form 2	KG, Form 2 FGD Participant 3 <i>did not state age</i>
KG4, Form 2	KG, Form 2 FGD Participant 4 <i>did not state age</i>
KG5, Form 2	KG, Form 2 FGD Participant 5 <i>did not state age</i>
NG1, Form 2	NG, Form 2 FGD Participant 1 aged 15 years old
NG2, Form 2	NG, Form 2 FGD Participant 2 aged 15 years old.
NG3, Form 2	NG, Form 2 FGD Participant 3 aged 15 years old.
NG4, Form 2	NG, Form 2 FGD Participant 4 aged 16 years old.
NG5, Form 2	NG, Form 2 FGD Participant 5 aged 15 years old.
TG1, Form 2	TG, Form 2 FGD Participant 1 aged 16 years old.
TG2, Form 2	TG, Form 2 FGD Participant 2 aged 16 years old.
TG3, Form 2	TG, Form 2, FGD Participant 3 aged 15 years old.
TG4, Form 2	TG, Form 2, FGD Participant 4 aged 16 years old.
TG5, Form 2	TG, Form 2, FGD Participant 5 aged 16 years old.
TG1, Form 4	TG, Form 4 FGD Participant 1 aged 19 years old
TG2, Form 4	TG, Form 4 FGD Participant 2 aged 19 years old.
TG3, Form 4	TG, Form 4 FGD Participant 3 aged 19 years old.
TG4, Form 4	TG, Form 4 FGD Participant 4 aged 19 years old.
TG5, Form 4	TG, Form 4 FGD Participant 5 aged 19 years old.

Appendix II: Timeline of Activities

FACULTY/SCHOOL/INSTITUTE: School of Humanities and Social Sciences.

Title of Research Work: The Effect of Menstruation on Academic Performance among High School Girls: A Case Study of Human Dignity in Migori County, Kenya

Progress Stage	Stage Description	Proposed Date
1.	Scoping of the Research study	July 10, 2015
2.	Choice of Research Topic	August 28, 2015
3.	Research Problem clarification, Research objectives, Purpose and Significance	August 28, 2015
4.	Foundation Literature survey	By September 10, 2015
5.	Proposal of Research Methodology	By September 10, 2015
6.	Advanced Literature Review	By September 10, 2015
7.	Detailed Proposal of Research Methodology	December 07, 2015
8.	Proposal Defense	January 22, 2016
9.	Data Collection	By March, 2017
10.	Data analysis and Interpretation	By April, 2017
11.	Research Report writing – first draft	By May 7, 2017
12.	Final draft of research report	By July 2017
13.	Submission of Research for Examination	By August 22, 2017

Any remarks:

Revised research title.

Appendix III: Questionnaire Tool for Female Students in Form 2 and Form 4

I, Josephine Osea, a student at Strathmore University undertaking a Master's degree course in Applied Philosophy and Ethics (MAPE). I am conducting a case study on the effect of menstruation on academic performance among high school girls

Confidentiality

I do hereby guarantee that the information to be collected is solely for the purpose outlined as above and any information from the respondents will be treated with the strictest confidence and will not be divulged to a third party without the respondent's knowledge and permission.

Section One:

(a) Please tick your age bracket.

14 - 15; 15 - 16; 16 - 17; 17 - 18; 18 - 19;

Section Two:

A: Home Environment

1. As a family, do you pray and read the Bible together during school holidays?
Yes No

2. Do you go to Church together as a family during the school holidays?
Yes No

3. Did your mother teach you about menstruation?
Yes No

4. How did getting your monthly period affect your relationship with your mother?

5. Were you able to communicate your feelings about your monthly period to your mother? Yes No

6. Are your parents married?
Yes No

B: School Environment

a) Is your Head Teacher/Principal male or female?

Male Female

b) If your Head Teacher/Principal is Male, are you happy about that?

Yes No

c) What marks did you score in KCPE?

Between 200 - 250 Between 251 - 300 Between 301 -
350 Between 351 - 400 Between 401 - 500

d) Do you enjoy Biology as a subject because it teaches students about the human body?

e) Have you ever been absent from class because of menstruation?

Yes No

f) If yes, for how many days were you absent from school?

1 – 3 days; 3 – 5 days; 5 – 7 days; 7 – 9 days; 9 – 11
days;

g) If you answered yes in (e) above, why did you decide to stay away from class activities during your menstruation?

h) Have you ever missed class because of menstruation (because you are in a boarding school)?

Yes No

i) If yes, how many class days did you miss because of menstruation (because you are in a boarding school)?

1 – 3 days; 3 – 5 days; 5 – 7 days; 7 – 9 days; 9 – 11
days;

C: Does menstruation affect academic duties?

- a. If yes, on a scale of 1 to 10, with 1 being the least painful and 10 being the most painful, how can you describe your menstrual pain?

1 – 3 3 – 5 5 – 7 7 – 9 9 – 11

- b. Have you ever missed P.E. or sports activities in school because of menstruation?

Yes No

- c. In your opinion, does menstruation negatively affect academic duties of adolescent girls, especially those in rural public secondary schools?

Yes No

- d. If yes, please explain how menstruation negatively affects academic duties of adolescent girls?

- e. Have you missed morning prep or evening prep because of menstruation?

Yes No

- f. Did you experience severe pain when you first had your menses?

Yes No

- g. In your opinion, does menstruation affect academic duties of high school girls?

Yes No

If yes, please explain in detail here below:

- h. Do you have any other comments to write about menstruation and academic performance of adolescent girls in rural public secondary schools?

Thank you very much for your time and for agreeing to participate in this research.

Appendix IV: Interview Guide for Focus Group Discussions with Form 2 and Form 4 students

<p>Main Objective: To determine the effect of menstruation on academic performance among high school girls in Kuria East and West Sub-Countries. This is a case study of human dignity in Migori County, Kenya.</p> <ul style="list-style-type: none"> • To explore the social and infrastructure support systems about menstruation within the family context • To explore the social infrastructure support systems about menstruation within the school context • To assess the effect of environmental factors surrounding the menstrual event in the academic performance of high school girls. 	
<p>Introduction:</p> <ul style="list-style-type: none"> • Appreciation • Student to be given a number (no names) • Purpose • Confidentiality • Duration • Mode of FG meeting • Questions 	<p>Thank you for sparing a few minutes to meet with me for this meeting.</p> <p>My name is _____ and I would like to talk to you about the social and infrastructure support systems about menstruation within the family and school contexts:</p> <p>The focus group discussion should take 30 minutes. I will be taping the session to ensure that I do not omit your valuable comments. I would like to request you to speak clearly and loudly so that your valuable comments are recorded as accurate as possible.</p> <p>All your responses will be kept confidential and will be used only for the purposes of this research. In order to protect your identity, I will assign each student with a number. Your contributions are highly appreciated.</p> <p>Do you have any questions before we can start the discussion?</p>
<p>Introduction of focus group interviewees</p>	<ul style="list-style-type: none"> • Please give a few details about yourselves: age and what form/class you are in. Please do not state your name. Instead identify yourself by the number you will have been given by the researcher.
<p>Support system during menstruation within Family context</p>	<ul style="list-style-type: none"> • When you had your first menstruation, who in your family supported you most? • Did you miss class and school activities because of menstruation? • Who do you talk to about menstruation? • Who buys for you the pads/menstruation products? • Who gives you the money to buy the pads/menstruation products?
<p>Support system during menstruation with school context</p>	<ul style="list-style-type: none"> • When you had your first menstruation, who in school supported you in any way? • Who do you talk to about menstruation? • Are the pit latrines located near your classrooms? • Are there disposable facilities located near your classrooms? • How do you dispose of the used menstrual materials? • Was your academic performance negatively/adversely affected by your absence from class and school activities during menstruation?

Appendix V: Letters of Request to School Principals for Authorization for Data Collection.



The Head
Nyaroha Girls Secondary School
P.O. Box 180 Kehancha

16th February 2017

Dear Sir / Madam,
RE: REQUEST TO CONDUCT RESEARCH

This is to certify that Josephine Osea is a final term Master of Applied Philosophy and Ethics (MAPE) student at Strathmore University. To complete her Masters she is required to write a Thesis applying the knowledge and skills she has acquired.

Ms. Osea intends to test her data collection in Migori County for her Thesis on "The Effect of Menstruation on Academic Performance of High School Girls: A Case Study on Human Dignity in Migori County". We shall be grateful for any assistance you can give her.

She and the university commit to follow all confidentiality regulations and submit the findings to your institution's management before publishing or disseminating them.

We hope that her research will benefit your institution, management and staff.

We shall appreciate any assistance given to her.

Yours truly,

John Branya
Director
Masters of Applied Philosophy and Ethics

Ole Sangale Rd, Madaraka Estate. [PO Box 59857-00200](mailto:admissions@strathmore.edu), Nairobi, Kenya. [Tel +254 \(0\)703 034000](tel:+25420703034000)
[Fax +254 \(0\)20 607498](tel:+25420607498) [Email admissions@strathmore.edu](mailto:admissions@strathmore.edu) www.strathmore.edu



The Head
Tarang'anya Girls Secondary School
Kehancha, Kuria West Sub County
Migori County.

3rd April 2017

Dear Sir / Madam,

RE: REQUEST TO CONDUCT RESEARCH

This is to certify that Josephine Osea is a final term Master of Applied Philosophy and Ethics (MAPE) student at Strathmore University. To complete her Masters she is required to write a Thesis applying the knowledge and skills she has acquired.

Ms. Osea intends to test her data collection in Migori County for her Thesis on "The Effect of Menstruation on Academic Performance of High School Girls: A Case Study on Human Dignity in Migori County". We shall be grateful for any assistance you can give her.

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Yours truly,

John Branya
Director
Masters of Applied Philosophy and Ethics

Ole Sangale Rd, Madaraka Estate. **PO Box** 59857-00200, Nairobi, Kenya. **Tel** +254 (0)703 034000
Fax +254 (0)20 607498 **Email** admissions@strathmore.edu www.strathmore.edu



The Head
Kwibancha Girls Secondary School
PO Box, 25, KWIBANCHA

16th February 2017

Dear Sir / Madam,
RE: REQUEST TO CONDUCT RESEARCH

This is to certify that Josephine Osea is a final term Master of Applied Philosophy and Ethics (MAPE) student at Strathmore University. To complete her Masters she is required to write a Thesis applying the knowledge and skills she has acquired.

Ms. Osea intends to test her data collection in Migori County for her Thesis on "The Effect of Menstruation on Academic Performance of High School Girls: A Case Study on Human Dignity in Migori County". We shall be grateful for any assistance you can give her.

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John Branya
Director, Masters of Applied Philosophy and Ethics
Masters of Applied Philosophy and Ethics

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