Exploring Women and Adolescent Girls' Attitudes and Experiences With Child and Maternal Health in Uganda

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Abstract

This research aims to better understand women and adolescent girls' attitudes and experiences towards child and maternal health and education. It examines education through formal health services and education, as well as informal, community-led initiatives helping to improve child and maternal health and education outreach. Educating young women about communicable and non-communicable diseases and the health risks involved in childbirth and neonatal development will help women make informed decisions, which should ultimately reduce mortality. Thus if young women decide to become pregnant, the goal is that they have the information and tools to better care for their own health and sanitation during pregnancy, as well as during newborn development.

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List of Abbreviations

AIDS: Acquired Immunodeficiency Syndrome

GDP: Gross Domestic Product

HDR: Human Development Report

HIV: Human Immunodeficiency Virus

HUMCs: Health Unit Management Committees

IMF: International Monetary Fund

IUD: Intrauterine Device

KMC: Kibale Mobile Clinic

LMIC: Lower-Middle Income Countries

MMR: Maternal Mortality Ratio

MoH: Ministry of Health

NCDs: Non-Communicable Diseases

NGO: Non-Governmental Organization

SAPs: Structural Adjustment Programs

SDGs: Sustainable Development Goals

UN: United Nations

UNCIEF: United Nations International Children's Emergency Fund

UNDP: United Nations Development Program

UNESCO: United Nations Educational, Scientific and Cultural Organization

UNFPA: United Nations Population Fund

UNMHCP: Ugandan National Minimum Health Care Package

UWA: Ugandan Wildlife Authority

WB: World Bank

WHO: World Health Organization

Chapter 1 - Introduction

My research is centred on understanding the barriers and enablers' women and adolescent girls' face involving child and maternal health in Uganda. This topic is important to international development not only because health is indispensable to sustaining life, but also because women and girls' are an essential part in maintaining well-being. During my field study, I focused on exploring women and adolescent girls' attitudes and experiences with child and maternal health in four surrounding villages of the Kibale National Park in Uganda. The main question to be addressed throughout the research is: Will creating a comprehensive, cost effective and sustainable form of health education influence adolescent girls' attitudes towards reproductive and perinatal health services, and will this education have the potential to improve child and maternal well-being?

Women and adolescent girls of the Kibale National Park were selected for this research project for three reasons. First, during my undergraduate studies in 2014, I completed field research as part of a three-month internship on the Kibale Mobile Clinic Health and Conservation Project in Uganda providing primary health care to local communities. This project works alongside the Ugandan Wildlife Authority (UWA) in helping to build positive relationships with neighbouring communities to improve public and environmental health. The mobile clinic travels to eight villages surrounding the Park, visiting each about once every three-months, and providing free consultations and at-cost medications to local villagers. During my field work, I led community group discussions in three rural villages to better understand prevalent

diseases in the area and primary health care measures which can be implemented. I developed a stronger appreciation for the challenges faced in Uganda in relation to health care practices, poverty, instability of community interest and commitment, low levels of sustainability and lack of equal opportunities. Ensuring there is equal distribution with no barriers to access is a fundamental part of the mobile clinic design (KPMG, 2012).

Second, I wanted to enhance my understanding of the attitudes and realties women and adolescent girls face towards child and maternal health, and the social and cultural impacts, as well as gender disparities that affect their well-being.

Third, I was interested in understanding the opportunities for the mobile health clinic in integrating an informal education initiative for adolescent girls, while this mobile clinic visits villages to provide care. The field research for this project was carried out in and around the Kibale National Park in Uganda for a two and a half month time period. I chose the four surrounding villages of Kyamugarra, Kanyasohera, Makobyo and Kasojo because I had established contacts in these villages and was familiar with the dynamics from my previous work as an intern in this area.

NGOs and formal healthcare physicians and workers were also interviewed from the surrounding areas to gain a better understanding of women and adolescents girls livelihoods and the reality of health care and education in rural Uganda. These health facilities and organizations interviewed consisted of: Kiko Health Centre III, Buhinga Hospital, Kanyawara Clinic, Kibale Mobile Clinic, and Kibale Forest School Program. Since the research I was carrying out was interdisciplinary, in connecting health and education, I felt it was important to also interview health professionals and educators' to

develop my understanding of their point of views and experiences with working with mothers and adolescent girls at the village-level.

I chose qualitative methodologies for this research because it is the most relevant to addressing my research question. It allowed me to use a variety of techniques to measure and collect data. I had the privilege of conducting interviews with women, NGOs and healthcare professional, as well as focus group discussions with adolescent girls. I started by organizing my research in a systematic and meaningful way, by coding the data and extracting themes in women, girls, NGOs and health professional's answers that were linked to the research question. I conducted a theoretical thematic analysis of the information gathered, provided by Braun & Clark (2006).

The focus for this analysis is to link the data that is relevant in answering the research question and the aims of the research. I discovered that the core themes of geographical barriers, access to culturally appropriate education and the social constructs of adulthood, linked to the theoretical framework of Andersen's health behaviour model. First, interviews with the women and focus group discussions were transcribed from Rutooro to English. Second, the data was sorted to further understand the data set. Thirdly, a list of initial codes was created from the data, which were then sorted for different patterns and potential themes. Lastly, themes were further refined and connected to research in the field and my theoretical frameworks.

The first chapter of my thesis sheds light on the current issues surrounding health and development and the gaps that still remain in women and adolescent girls' receiving adequate child and maternal care, as well as culturally appropriate health education.

Chapter Two reviews scholarly debates and existing literature on child and maternal

health, as well as the importance of adolescent girls' education and development. I also include a theoretical framework, Andersen's Health Behaviour Model, which helped shape my research and understanding. Chapter Three will provide a brief background on Uganda and explain the methodology of my fieldwork, my positionality with respect to my research and present the data collected in the empirical section. Chapter Four will discuss an in-depth analysis of the empirical findings and how they expand on the perspectives set out in the literature review. Chapter Five will present the conclusions and summary of the research findings. Lastly, I will discuss recommendations and a potential way forward for an informal health education program at the village level. Guided by the evidence, I will present the case that a sustainable health education program for adolescent girls in Uganda will improve child and maternal health and reduce mortality rates.

1.1 Focus

Health is a constant preoccupation for our general well-being and is indispensable to sustain life. Keeping the body and psychological systems in good condition increases the quality of life, improves livelihoods, and may eventually enhance economic productivity. Over the past 15 years, primary health care, defined as "a whole-of-society approach to health and well-being centred on the needs and preferences of individuals, families and communities. It addresses the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental and social health and wellbeing" (WHO, 2019a), has made considerable progress all around the world (WHO, 2015b). However, several countries still have poor access to health facilities and

education, and consequently live with high levels of infectious and non-communicable diseases. Given the advances made in modern health care, disease prevention, medicine, and pharmaceuticals, low and middle-income countries (LMIC) should have access to the resources to address curable illnesses. Everyday close to 830 women die from pregnancy and childbirth related causes (WHO, 2018a); 99% of these deaths occur in LMIC countries, with sub-Saharan Africa accounting for around two thirds of these deaths alone (WHO, 2018a). Although there has been a worldwide drop in the past decade; about 44% between 1990 and 2015, women are still dying from preventable causes (Alkema et al., 2017). Like numerous other countries in sub-Saharan Africa, Uganda continues to struggle with child and maternal health issues, despite the programs and efforts supported by the government, international organizations and Non-Governmental Organizations (NGOs). There was an estimated maternal mortality ratio (MMR) of 343 deaths per 100,000 live births in Uganda in 2015, which is defined as the "death of women while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes" (UNICEF, 2017). When it comes to providing women with antenatal care services, close to 90 percent of women will attend one antenatal care visit, and around 80 percent will complete the recommended four antenatal visits (UNICEF, 2018). However, only half of these women will use a formal health facility due to women's experience using these facilities, feedback that they are receiving from other women and elders in the village, as well as poor physical access to health centres and skilled birth attendants, defined by the World Health Organization (WHO) as a "competent maternal and newborn health professional

that helps ensure that women receive high-quality health care during childbirth" (WHO, 2019b). Multiple qualitative studies have addressed the poor quality of care services, which dissuades women from using skilled birth attendants (Bazzano et al., 2008; D'Ambruoso, Abby, and Hussein, 2005; Cheryl A. Moyer et al., 2013; Tunçalp et al., 2012). Maternal health has the largest impact on adolescent girls, causing them to be the most neglected and vulnerable groups in the world (UNESCO, 2013). Many are discriminated against as females, and subsequently also face decreased opportunities and freedom of choice. They often face barriers to accessing public services, like health and education, and are exposed to violence (UN, 2011).

Approximately 21 million girls between the ages of 15 to 19 years old, become pregnant in LMICs each year (Darroch et al., 2016 & UNFPA, 2015). Almost, 3000 of these girls die every day, from fully preventable and curable causes (WHO, 2018a). The UN Population Division presented the global adolescent birth rate in 2015 at 44 births per 100 girls aged 15-19 (SDG Indicators, 2018). This situation leads to both, economic, health, education and social issues. Adolescent pregnancy, is not only detrimental to youth's health, but also remains one of the main contributors to child mortality, linking to "intergenerational cycles of ill-health and poverty" (WHO, 2018b). Children are 15 times more prone to death before age five than in higher income countries (WHO, 2015b). In the number of child mortalities, which occur in the pre, peri, and postnatal stages of growth in LMICs, an estimated two-thirds are preventable by providing access to simple and inexpensive medical interventions and education (Weldearegawi, Melaku, Abera, et al., 2015). Social pressures from family and community members on these issues contribute greatly to its continuation. Close to 15 million girls per year are married before

they turn 18 (UNFPA, 2013c).

Adolescents face extensive barriers in accessing reproductive health education and contraceptives consisting of lack of access, knowledge, transportation and finances. Even when girls have open access to contraceptives, there are factors impacting their decision including pressure to have children, stigma around contraceptive use, lack of accurate knowledge, and the experience girls have with contraceptives and formal health care services (UNFPA, 2015 & Darroch et al., 2016). Adolescent pregnancy has a large impact on child and maternal mortality and remains a steady contributor to poverty and poor health (WHO, 2018a & World Bank, 2017). Adolescent pregnancy affects education and school attendance with early dropout rates. Lower levels of education usually lead to lower levels of skill development and work opportunities; further continuing the poverty cycle (World Bank, 2017). Globally, an estimated 70 million children do not attend school, of which 60 % are girls (UNESCO, 2013a). In sub-Saharan Africa, one in four children are not able to afford to attend school and one in three children drop out before completing primary school education to work and help support their families (UNESCO, 2013a).

Passing on knowledge to others through education and training programs is a simple and effective measure towards healthier lifestyles. Studies have found a direct correlation between education and improved health (Becker et al., 2005; Alder & Newman, 2002; Kunst et al., 2005; Mackenbach et al., Marmot et al., 2002). Providing health promotion materials is a strategy, although if used in conjunction with education that can be easily passed to younger generations, then there is the possibility of long-term sustainability of health systems to be improved. Furthermore, carrying out educational

programs in a group setting within village communities is a bottom-up approach to teaching that integrates the whole community and allows the open exchange of concerns. Providing education in a group setting also offers equal opportunity for voices to be heard, thereby promoting equity. In many cases, villagers recognize the negative effects of poor health, although they do not realize that they have the means or resources to improve the situation. In this circumstance, education should be aimed at shifting individual's attitudes by using concrete and reproducible examples, which demonstrate that changes can be easily integrated into everyday lives.

1.2 Research Questions and Objectives

This research aims to better understand women and adolescent girls' attitudes and experiences towards child and maternal health and education. The research examines education through formal health services and education, as well as informal, community-led initiatives helping to improve child and maternal health and education outreach. The main question that is set to be addressed throughout the research is: Will creating a comprehensive, cost effective and sustainable form of health education influence adolescent girls' attitudes towards reproductive and perinatal health services, and will this education have the potential to improve child and maternal well-being? I define this as being an informal way of teaching that is built on the foundation of open dialogue between women and girls and a health worker or village leader that can be easily accessible and available for answering individual's questions and share knowledge about maternal and reproductive health topics. This form of education would be cost-effective because there would be limited resources and money needed to be able to engage in

learning at the village-level. For the purpose of this thesis, I will be defining maternal well-being, as the state of love and respect for self and child (Singla, Kumbakumba & Aboud, 2015).

The research objective of my master's thesis is to investigate the attitudes of mothers and adolescent girls concerning the spread of disease, which will then be used to explore the use of simple and sustainable education programs to improve child and maternal health. Educating young women about communicable and non-communicable diseases and the health risks involved in childbirth and neonatal development will help women make informed decisions, which should ultimately reduce mortality. Thus, if young women become pregnant, the goal is that they have the information and tools to better care for their own health and sanitation during pregnancy, as well as during newborn development. The long-term objective of this research is that the communities will retain this knowledge and pass it down through generations in a sustainable manner (NAHO, 2012).

Chapter 2 - Literature Review

2.1 Health and Development

Health plays a crucial role in development. The WHO defines health as, "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (WHO, 1978, article 1). Having such a broad definition, opens up multiple areas of focus that affects health including: the social, political, economic, cultural and environmental aspects, including the biological and genetic factors that highly influence the health of populations. Health and development hold an interdependent relationship where a populations' health depends on its economic development and vice versa (Johnson, 2011). This demonstrates why the overall health of a country is often seen through its overall stage of development, and therefore is fundamental in studying the framework of international development and health (Agobonifo, 1983, p. 2005). The frequency of illness and disease in developing countries is compounded by a wider set of social, cultural and environmental factors referred to as the social determinants of health. These determinants influence the provision and experience of individual health (Fox & Meier, 2009). Shown by the fact that health needs of citizens extend to services and beyond the health sector: good nutrition, elimination of poverty, a hygienic environment, infrastructural facilities such as good water supply and housing as well as proper health services and skilled health care professionals (Agbonifo, 1983, 2003). For the purpose of this thesis, I will be viewing development as economic, social and political development, whereby individual's potential in this world is seen as being augmented by socioeconomic status, health and living conditions.

2.1.1 Economic Development and Wealth Over Health

Understanding what has worked and what has failed in the history of health and educational development will help guide future efforts. First, there is a well-known debate surrounding wealth and the quality of health and education. Once colonized countries gained their independence around the 1960s, the focus of international development within impoverished countries shifted to economic expansion and Gross Domestic Product (GDP) growth. Modernization theory became known as the most popular theoretical model to base development plans on less developed countries. The modernization and economic improvement of developed countries was through the industrialization of the less developed ones (Marx et al., 1990). Once a country had gained control over its economy, wealth and resources could trickle down to the public providing services such as health care and education. Economic development was seen as the solution to supporting the public and keeping a focus on their interests (Inkeles, 1974). Developed countries were associated with higher GDP and better public services, consequently viewed developing countries to be at fault of their lack of economic growth. This approach continued to highlight poverty through poor policy decisions, negligence of resources, faulty exchange rates, poor state intervention, and corruption (Berg Report, 1981).

In the 1970s, developed countries determined a need to take control and intervene in order to address their unique situations. This change led to the birth of neoliberalism with Structural Adjustment Programs (SAPs) supported by the World Bank (WB), International Monetary Fund (IMF) and Western donors to save developing nations from further suffering. The aim of SAPs was to control budget scarcities in developing

countries by creating improved macroeconomic policies, increasing access to private sectors, promoting the development of free markets, as well as removing subsidies and greatly decreasing public spending. This meant that developing countries had to accept devaluation and trade liberalization while being obliged to make repayment arrangements. This brought forward the need to 'rollback' state businesses and public services, including healthcare and education (Heidhues et al., 2004). The SAP logic focused on increased GDP growth, which would allow the country to gain an increase in resources to be invested in public services like health care (Harvey, 2007). Unfortunately, this did not work as planned. The SAPs put in place to repay debt only made governments cut public spending on social services since they were not considered as priority sectors contributing to GDP growth. The policies put fees on health and education services for profit and pushed them from the public to the private sector. The SAPs argued that the business market would be the most profitable and efficient for providing health care to the population. These social services, such as education and health care were now made into a commodity instead of a public good (Heidhues et al., 2004). Death and disease increased with the reductions in health care (Brunelli, 2007, p.11). The SAPs further marginalized rural populations, hindering them from receiving proper health services; whereas the opposite was taking place for the middle- and upperclass inhabitants (Sen and Koivusalo, 1998). Thus, neoliberalism had a negative effect on international development creating unequal access to education and health services (Bond and Dor, 2000).

In particular, there was significant debate on the effect of SAPs on countries in Africa. In 1994, the World Bank stated "adjustment is working" in industry and

agriculture, however many studies have come to the conclusion that it had zero impact on African countries (Mosley et al., 1995; Easterly, 2000; Klasen, 2003). This was mainly due to unsuitable policy decisions, "stop-and-go" government spending for the economy, poor coordination (Cornia and Helleiner, 1995; World Bank, 2000), as well as product depreciation in core markets during the 1980s and 90s (Mkandawire and Soludo, 1999). After extensive criticism on the SAPs, it was recognized that the government should provide support for public goods, and that public funds should prioritize the needs of the poor to increase access to services (Adam, Bevan & Chambers, 2001). The 1990s adopted a new approach referred to as "adjustment with a human face", acknowledging the role of the state and the social element in development (Heidhues and Obare, 2011). Since institutions are essential to fostering development, the models based on neoliberalism, were not able to support Africa. The President of the World Bank admitted that they had overlooked institutional structure, which a market economy cannot operate without. He expressed "the World Bank has been consistently surprised by cases in which people do not respond to incentives in the predicted manner, when an understanding of local institutions would reveal these responses to be quite consistent with local culture and habits" (Wolfensohn, 1998). The Brundtland Report (1987) called for increased focus on economic development to support public health sectors like health and education. Again, economic growth became the primary focus supporting economist Robert Barro's beliefs that economic growth affected life expectancy (Barro, 1996). However, this outlook again failed to produce promising results for the developing world. Sen (2001) and Monk (2010) both showed that having a healthy population didn't fully mean that it was a wealthy population. Monk stated the "pursuit of health is not

necessarily linked to economic growth... health can be pursued at low levels of economic activity... [a] government's fiscal ability to finance health is not closely linked to economic growth... [and that a] government can finance health even when its total expenditure ability is restricted without worsening its financial predicament" (2010, p.12). Monk's research on health systems in India and Cuba suggested that improving 'health indicators' of a nation could be achieved without the need for high levels of economic growth. These two case studies demonstrated that health needs could be seen through improved accessibility, resources and education (Monk, 2010).

2.1.2 Poverty and The Widening Health Gap

Poverty is often an outcome of poor health. Being ill impacts personal productivity and well-being and can prevent individuals from working to support themselves and/or their family. Poor health can also lead to monetary stress when treatment costs are high. Poverty further marginalizes individuals; making it even more difficult to gain access to health care, increasing the risk of nutrition deficiencies and mortality (Dodd & Munck, 2003, p.17). International health and development initiatives are now focusing on ways to improve and expand health care beyond the neoliberal approach. For instance, Amartya Sen advocates that development should concentrate efforts on ensuring human freedom rather than on economic growth (Sen, 1999).

The health versus wealth debate has been well-summarized in the United Nations Development Program's (UNDP) 2010 Human Development Report (HDR), which acknowledges the lack of correlation between economic growth and fundamental achievements in health development. The core message from the HDR is that improving

education and medical accessibility should be objectives for all countries, regardless of income and economic growth. "Much development policy-making assumes that economic growth is indispensable to achievements in health and education. Our results suggest that this is not the case. This does not mean that countries can forget about growth- we have underlined that growth generates important possibilities. Rather, the results imply that countries do not have to solve the difficult problem of generating growth in order to tackle many problems on the health and education fronts (UNDP, 2010, p.50)."

Improved health can only be fully achieved through the support and advancement of women. Women are an absolute necessity when it comes to furthering development yet the evidence concludes that they are disadvantaged when accessing resources. The WHO recognizes women greatly affect communities and individuals, due to their role as primary educators and caretakers of their families. The WHO states, "a society deprived of the contribution made by women is one that will see its social and economic life decline, its culture impoverished and its potential for development severely limited" (WHO, 1999, p.5). Development is contingent on women's overall health and well-being, which further requires a focus on the link between gender and health.

2.2 Gender, Health and Development

Health complications in individuals are often the result of numerous elements and controls that link both social and biological aspects of everyday life (Cole & Fielding, 2007). Genetic differences between men and women cause them to experience different health risks, however the social and cultural contribution to those risks within society

further their health issues. Kitts & Roberts (1996) use the term gender as describing "the socially constructed power differences between the sexes, as well as their social and cultural responsibilities and constraints" (p.4). Since most societies are formed under a hierarchy and uneven basis of genetic differentiation, gender affects the access to both social and economic assets and privileges. This causes men and women to experience different livelihoods and health risks, including access to health care. Taking a "gendered perspective" on health allows for a better understanding of the underlying problems that are contributing to illness and death (Kitts & Roberts, 1996).

For centuries women have suffered the most from poor health issues (WHO, 2013). Unfortunately, most of the suffering is due to their gender and results in limited access to health resources and delays in care. This issue increases when women put their family members before themselves (Dodd & Munck, 2002, p.11). Low social status for women also causes them to have "limited access to economic resources and basic education and thus their ability to make decisions related to their health and nutrition" (WHO, 1999, p.15). Women are often refused access to proper health care due to their cultural background and their representation within in it, allowing for another family member to be the head decision-maker. This lack of decision-making power, poor nutrition, excessive work, and limited access to social and economic resources, greatly limits women's ability to cover costs and support her and her family's well-being and family planning services. These factors all contribute to prolonged and poor health status (Kudson, 2003). The "gendered nature of health care" is seen and secured in many different ways throughout society. Women's ability to reproduce is seen as an important part of health care. However, women's health is usually connected to the health of their

children, as well as their role as a mother; whereas men's health is taken into account on its own, and not seen as a family process (Rathergerber and Vlassoff, 1993, p.514). This mentality has made an impact in the development of women's health structures and policies. There has been little progress seen or made to change the quality-level or urgency, compared to that of women and men (Udipi and Varghese, 1995), demonstrating that women's health needs are secondary to others.

Women's health must be understood as an end rather than a means to children and family health. Women's sexuality has always represented two means of oppression; first with gender and the other with sexuality, which is defined as "an effect of the social process of gender relations that institutionalize and reproduce certain norms of gender to privilege the dominant group and marginalize, exclude or cause other harm to the oppressed group" (Ingrey, 2016, p.1; Sweetman, 2002). In many cases, women have little influence and power over their bodies including when to have intercourse. This lack of control, power and decision making leads to issues in planning safe sex practices and choosing when they want to have children including proper birth spacing (WHO, 1999, p.15). The cultural stress and belief are compounded when women must birth children and they have with limited choices to be supported economically outside of marriage. Women's antenatal and postnatal experience are often formed outside of their family's priorities since the care is left to others (WHO, 1999). This form of gender discrimination in overlooking women's health needs has contributed to maternal health issues and mortality. It is a form of inequality that is most apparent in women's reproductive and maternal health. Maternal mortality is part of a larger issue that goes through the realms of economic, social, political and cultural issues, over simply being biological The

medical causes of maternal health issues are related to underlying factors that contribute to ill health including lack of power, lack of financial independence and lower self-worth (Kundson, 2003).

2.2.1 Maternal Health and Mortality

Maternal health is considered a key indicator of public health, contributing to the overall quality of a country's health care system (Parkhurst et al., 2005; Bullough et al., 2005). The WHO defines maternal health as the state of health of a woman during her pregnancy, childbirth and/or during her postpartum period (WHO, 2010). Maternal health is further evaluated on the health state of women and access to quality of health services. In 2013, there were an estimated 289,000 maternal deaths worldwide, equivalent to a Maternal Mortality Ratio (MMR) of 210 maternal deaths per 100,000 live births (WHO et al., 2014). 99% of maternal deaths occur in developing countries, where the MMR is estimated at 510 per 100,000 live births compared to the 1 in 3700 in developed regions (WHO et al., 2012, 2014). Maternal deaths often occur during the labour and delivery stages of pregnancy, or right after birth during the postpartum period. Death is often caused by anaemia, hypertensive disorders or infection. Almost half of maternal deaths are caused by childbirth alone, with most being fully preventable with proper access to resources such as antenatal care during pregnancy, skilled delivery with childbirth, and support and care for the mother and child for a few weeks following the birth (Hogan, Goreman & Naghavi, 2010; Jowett, 2000; WHO, 2019c). Maternal mortality is still a prevalent issue in the developing world. Unfortunately, programs to support women during their pregnancy have been neglected, and the focus has been placed on child

health (Kitts and Roberts, 1996). Women have different health needs including precautionary measures unique from neonatal and child health needs. Funding to support research on maternal health was only established in 1985 by the WHO and the United Nations Population Fund (UNFPA) (Rosenfield & Maine, 1985, 83).

A functioning health system is necessary to ensure safe and timely treatment and care for women during pregnancy. According to researchers, a functioning maternal health service must consist of "providing basic health equipment, supplies and referral systems, financing and human resource organizations" (Bullough et al., 2005, p. 1181). Giving birth, especially in informal, low-resource settings, places considerable physical, psychological, and social strain on women's health. Although there has been extensive international support to improve maternal health and services, mortality remains a serious and ongoing health challenge, impeding women from receiving sufficient healthcare (AbouZahr, 2003). The main issues surrounding maternal health services in the developing world are focused on the core barriers of geographic accessibility, availability, affordability and acceptability.

2.2.2 Health Education for Women

Health education for mothers plays a positive role in the utilisation of health care services and the achievement of improved quality outcomes, such as lower mortality rates (Caldwell, 1979; Cochrane et al., 1980; Cleland and van Ginneken, 1988; Cleland, 1990; Tulasidhar, 1993; Debpuur et al., 2005, Hosseinpoor et al., 2005). Education for women is essential in health and development. Low-levels of education lead to poverty and poverty causes poor education for girls, as seen in sub-Saharan Africa, where poverty,

gender disparities and illiteracy combine and continue to oppress women. Fay et al. (2005) emphasize that GDP per capita is not the only determinant of child health. They identify access to infrastructure as an important variable between rich and poor households to explain child health. They argue that infrastructure is particularly important for child malnutrition and to a lesser degree for child mortality. Moreover, the authors identify female literacy, inequality, urbanization and access to primary health services as important determinants of child health (Paulick & Vollmer, p.152). The lack of available resources and funding in primary education depends on the presence of enough properly trained teachers. But pupil/teacher ratios have increased in sub-Saharan Africa and South and West Asia since 1999 (UNESCO, 2015). However, in 2015, there was a need for 18 million new teachers to reach universal primary education (UNSECO, 2016). Other factors have a clear influence on learning, for example: a safe and healthy physical environment, including, among others, appropriate sanitation for girls; adequate learning and teaching materials; child-centred curricula; and sufficient hours of instruction (at least 800 hours a year) (Matsuura, 2007). Among the few studies on maternal education, a strong correlation has been found been education level and the utilization of maternal health services (Gabrysch & Campbell, 2009). In sub-Saharan Africa, often times achieving a primary level of education is difficult. Studies show that basic levels of education have resulted in increased levels of maternal health and even more so with secondary education (Adanu 2010; Addai 2000; Ensor et al. 2013; Gabrysch and Campbell 2009; Mirsho et al. 2007; Stekelenburg et al. 2005; Winfred A. Avogo 2011). "The contextual effect of education (using percent of women and/or and adults with

secondary education in a cluster), had also been found to strongly predict a women's use of skilled birth attendants (Gage 2007; Stephenson et al. 2006a)".

Economic barriers contribute to the expense of education. Poverty affects mothers being able to receive adequate care, especially during obstetric emergencies, which leads to further delays and increased issues as well as the family's opportunity costs of having children in school. Adolescent pregnancy can have severe negative social and economic effects on girls, families and communities. Girls often need to drop out of school when they become pregnant. This causes girls to only attain low levels of education leading to fewer opportunities and reduced skills to find a job (WHO, 2014). Caldwell (1994) stated "a large number of studies have shown almost as convincingly as anything can in the social sciences, that a mother's education has an independent, strong and positive impact on the survival of her children." (226) Girls have always carried a higher burden then boys during their adolescent years because they often marry and have children at an earlier age. The inescapable progression begins whereby early marriage leads to increased pregnancy. Pregnant girls are usually expelled from school or discouraged from attending because of the negative stigma surrounding them. Not being able to complete secondary school contributes to low levels of education, including health education about how girls should take care of themselves (Central Statistical Agency, 2005).

The use of family planning services and its role in unintended pregnancies in sub-Saharan Africa is limited. Many women in developing countries have no access to family planning services, which increases their risk. Between 2005-2012, close to a quarter of women ages 15-49 years who are married or in consensual sexual relationship and not

desiring to have children, lack access to family planning services that will guarantee spacing or limiting births, reduce prevalence of unwanted pregnancies and poor pregnancy outcomes (WHO, 2013). The majority of women with unmet needs towards family planning, such as access to adequate contraceptive methods, were from the same region that accounted for the highest maternal and neonatal deaths. Sub-Saharan African countries having the highest proportion of women in relationships with unmet needs include: Uganda; 38%; Ghana 36%; Liberia 36%; Togo 31%; Zambia 27%; and Nigeria 19% (WHO, 2014). A behavioural perspective is often taken towards adolescent girls and early pregnancy yet their situation may be a result of circumstances beyond their control. It is the absence of choice, and increasing pressure from their families, communities and government, which causes them to be a highly vulnerable group. A girl's health, rights and education attainment are all impacted leading to her not fully being able to recognize and/or fulfill her potential. At a larger scale, it also affects the country's economy with women unable to enter the workforce. A holistic approach to supporting adolescent girls is needed which includes policy changes and a shift in society's attitudes, and not solely on adolescent behavioural change (Igras et al., 2014). "We must reflect on and urge changes to the policies and norms of families, communities and governments that often leave a girl with no other choice, but a path to early pregnancy" (UNFPA, 2013b). Effective health care interventions are under-utilized in the developing world, and income-related disparities are widely seen.

2.3 Child and Maternal Health in Uganda

Children in Uganda face an increasing number of challenges for survival. The most directly linked causes of under-5 child mortality are pneumonia, malaria, diarrhea and HIV/AIDS. Underlying causes of child morbidity and mortality include the unavailability of primary health services, especially in rural areas where the quality of these key services remains sub-optimal and uptake staggeringly low (UNICEF, 2015, p. 4). There has been a reduction in under-5 mortality over the past 20 years (137/1000 to 90/1000) (UBOS and Macro international, 2007 and UBOS and ICF International, 2012). However, there is still much work to be done on reaching the set target of 25 deaths or less per 1,000 live births shown in the Sustainable Development Goals (SDGs) of the country for children under 5 (UNICEF, 2017).

Low levels of health care facilities are reoccurring issues in developing countries that almost all qualitative studies have addressed involving maternal health. Women often feel neglected when they use formal facilities, and state that when they are acknowledged, they are treated impolitely. These experiences contribute to women holding preference to delivering at home and avoid maternal health services overall (Amooti-Kaguna and Nuwaha 2000; Bazzano et al. 2008; D'Ambruoso et al. 2005; Kyomuhendo 2003; Cheryl A. Moyer et al. 2013; Mrisho et al. 2007; Tunçalp et al. 2012). There is also the issue of the level of cleanliness in health centres. Many public clinics and hospitals struggle with poor water and sanitation facilities (Kypmuhendo 2003; MacKeith et al. 2003). Unfortunately, there are limited quantitative studies that have reviewed the quality of care as a barrier to maternal health services use (Gabrysch and Campbell 2009). Stekelenburg et al. (2004) found zero correlation between the

quality of maternal health care and women's use of the facilities in a rural area of Zambia. However, they also discovered that it was mainly due to high satisfaction levels with the facilities (Stekelenburg et al. 2004). Most studies demonstrated the positive link between women expressing that they were unable to use skilled birth attendants and/or do not see the benefit of antenatal care services with having a skilled delivery (Gabrysch and Campbell 2009; Gage 2007; Mwakipa, 2007; Winfred A. Avogo 2011). Antenatal services are an opportunity to promote skilled birth attendant use, and/or provide women with information on their pregnancy status, which then comes to support positive decision-making when it comes to delivery.

2.3.1 Obstacles to Availability of Health Care Facilities

Access to maternal healthcare is associated with the affordability, acceptability and accessibility of maternal health services (Gulliford et al., 2002). Poor access to proper healthcare facilities is often linked to socio-economic and geographic barriers often faced by mothers while accessing maternal health care services (Danforth et al., 2009). Kowalewski, Jahn & Kimatta (2000), observe that social barriers usually include gendered issues emerging from cultural barriers, such as the use of traditional birth attendants. "Gender inequalities and economic limitations of women in some select parts of the world continue to hinder the advancement of maternal health. It is well recognized that the participation of male partners in using family planning methods to limit and space the births of their children can contribute to a reduction in maternal mortality" (Mustafa, Afreen & Hashmi, 2008; Ditekemana et al., 2012; Byamugisha et al., 2011, Shattuck et al., 2011).

Other studies have suggested that the perceptions of the quality of the local health system influence decisions to deliver in a health facility (Kruk et al., 2010; Thaddeus and Maine, 1994). Quantitative studies have discovered that there is strong correlation between women's previous experience during facility delivery and antenatal care (Bell et al. 2003; Gabrysch and Campbell 2009; Moyer and Mustafa 2013; Stephenson et al. 2006a). Qualitative studies support this in stating that women usually deliver with the same person if their first delivery and overall experience was a positive one. However, women were less likely to return to use formal facilities if they had a bad experience (Amooti-Kaguna and Nuwaha 2000; D'Ambruoso et al. 2005; D.V. Duong et al. 2004). Previous experience using formal services is seen as being a "heterogeneous variable" as it can reflect availability, accessibility, familiarity, and attitudes towards maternal health services, as well as socioeconomic factors associated with the prior use of services (Bell et al. 2003; Gabrysch and Campbell 2009; Stephenson et al. 2006a). Deaton et al. (2005) have shown that most developing countries have both difficulty in providing effective public health care but also lack the institutional ability to regulate and monitor the private sector due to limited expenditure on health care in Uganda. Another barrier women face is the lack of adequate transportation to get to facilities. The emphasis has been on the availability of health services including that physical structures are available rather than on trained personnel to offer services. Most health facilities only have nurses and midwives while physicians can only be accessed in the larger hospitals or within private health facilities located in the district headquarters. There is also the issue that many people cannot afford transportation to health facilities resulting in not using health facilities or walking a long distance to access services (Okella, 2009, p.38). One reason

why pregnant women may not be using health facilities is the lower number of skilled health professionals, which result in long hours of waiting (Kruk et al., 2010). Other studies have suggested that the perceptions of the quality of the local health systems influence decisions to deliver in a health facility (Kruk et al., 2010; Thaddeus and Maine 1994). Similarly, other studies have suggested that poor treatment of women by the health care staff may be acting as a significant deterrent to seeking mainstream medical health care (D'Ambruoso, Abbey & Hussein, 2005; Yakong et al., 2010). These barriers and persistent challenges to accessing maternal health result in academic dialogue interrogating issues on maternal health and access to health care through a feminist perspective.

2.4 Health Education and Village Adolescent Girls in Uganda

Adolescence is a crucial period in the healthy development of individuals.

Adolescent girls in Uganda face numerous challenges. Many receive minimal education, as well as having limited access to proper health knowledge and little influence on decision-making in the household that affects their health and well-being. This demonstrates that increased awareness is an important factor regarding improved maternal and child health (Santhya & Jejeebhoy, 2015). Adolescent girls face more issues than boys primarily because of socio-cultural factors. These issues for girls include being deprived of appropriate care, nutrition and opportunities such as for work and schooling (Santhya & Jejeebhoy, 2015). Health is a serious issue during adolescence.

Despite numerous efforts and combined support, the youth of sub-Saharan African populations are severely deprived of primary health care services and awareness. Girls

are especially vulnerable because they are often less educated about their bodies and sexual reproduction. There are also rarely offered sufficient access to resources to better educate themselves and to be able to discuss these issues openly. These girls need guidance and care in view of their role as well as future generations.

The lack of importance demonstrated to health education and awareness is the key indicator attributing to individuals' health knowledge. A study done by Mishra et al. (2016) showed that numerous women knew about problems like general weakness, pain in abdomen, pain in legs and back. However, during the pretesting phase, a much lower percentage of women knew about water and airborne diseases. The lack of health resources available when trying to implement measures to slow health expenditure growth, governments need to ensure that they do not exacerbate the inequalities in health status. Most governments in developed countries recognise that there is a 'social gradient' in health where people at the lower end of the socioeconomic spectrum are in poorer health and have a much higher risk of contracting just about any disease than those at the upper end of the spectrum (Marmot, 2011).

Increasing awareness among families and children of the benefits of education can be successful and cost-effective policy to increase school attendance and reduce drop-out rates with little cost to the public purse. A randomised evaluation done by the Poverty Action Lab on Madagascar found that providing information on the returns of education for adolescents who finish primary school increased attendance by 3.5 percentage points (Nguyen, 2008). Handa (2002) showed that raising adult literacy would have a larger effect on primary school enrolment rates than providing cash to households. Adult literacy campaigns are nearly 10 times more cost-effective than cash transfer (Wolfe &

Zuvekas, 1997). Many analysts would agree that lower levels of education produce more externalities than higher levels. Literacy and other knowledge imparted at the lower levels of education are generally seen as an effective means for achieving national identity and cohesiveness. Unfortunately, there is little empirical evidence on the magnitude of externalities across education levels, though there are some intriguing new results. Glewwe and Kremer (2006) argue that schools in developing countries face significant challenges. These include distortions in educational budgets often leading to inefficient allocation and spending of funds; weak teacher incentives leading to problems such as high rates of teacher absenteeism; and curriculums often focused excessively on the strongest students and not well-matched with the typical student, especially considering the high rates of teacher and student absenteeism.

2.5 Theoretical Framework

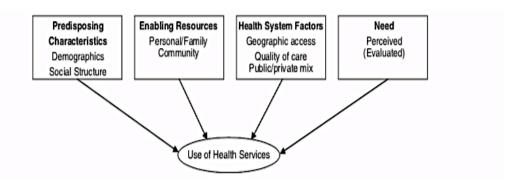
I have decided to apply Andersen's behavioural model of health services to support my research question and help guide my findings. This is a conceptual model that was initially created to demonstrate the factors that link to the use of health services (Andersen, 1995). Andersen's model will help situate the challenges women and adolescent girls' face in healthcare and education access, as well as their perceptions and beliefs around primary health care.

2.5.1 Andersen's Behavioural Model of Health Services

Andersen's model of health services is a socio-behavioural model that was created to understand the use of health services. It was first developed in the late 1960s to better

understand why families used formal health services. The model has since been adapted and shifted to include a lens that explores individual access to health services. The understanding of health beliefs have remained the same, and are defined as values, attitudes and the knowledge that individuals possess about health and health services that influence their decision-making (Andersen, 1995). The main influencing factors of the model look at the bio-socio-demographic variables to explain the changes visible in the use of health services. In the context of this research, it means that biological (age and sex), socioeconomic characteristics (income, education, living and marital status) and cultural (beliefs, female autonomy and ethnicity) have the ability to influence women and adolescent girls' perceptions and experiences with healthcare (Anderson & Newman, 2005).

Figure 1 Adapted Andersen's Behavioural Model



Even though the model was adapted to examine individual factors, there continue to be many connections to influences at the community level, which have a large impact on the use of maternal health services. Andersen states that women with adequate knowledge and a positive attitude and understanding of the effectiveness of maternal

health services are more likely to use them, which brings health education as a priority and supports the research question (Andersen & Newman, 2005). The enabling factors in this model are linked to the cost of health care and the availability of resources on an individual level, and then further combined with the geographical accessibility of reaching a health centre at the community level. When exploring needs, this study is looking specifically at perceived need, which is based off an individual's assessment of their personal health, and previous experiences with health-related signs and symptoms (Andersen & Newman, 2005).

Lastly, the predisposing characteristics look at the expected behaviour of a pregnant woman and how her community, and/ or beliefs can shape those attitudes towards health service use. Majaj et al. (2013) uses the Andersen behavioural model as a conceptual framework to guide their understanding of health behaviours of women living in the rural areas of occupied Palestinian Territories. Through their research findings, the researcher's confirmed there was a variety of factors contributing to women's desire to seek healthcare linked to a combination of predisposing, enabling, and structural factors and perceived need. Through this framework the researchers were able to identify sociocultural factors being the main influence in women's behaviour and choices, linking it specifically with women's gendered role and nature within their families (Maja et al., 2013). These findings are similar to a study by Scheppers et al. (2006) looking at the barriers of access to health services among ethnic minorities. They used the Andersen Model to provide a foundation of potential variables that would affect an individuals' use of health services. The researchers stated that they found the barriers can be formed using the Andersen Model where 'universal' problems could be applied to anyone. However,

the socio-economic vulnerabilities that influence seeking health care cause a greater shock to ethnic minorities (Scheppers et al., 2006, p.327, 345).

The model chosen addresses various aspects that help develop a better understanding of women and girls' perceptions and the use of health and education services. Both models demonstrate that proper access to resources, learning opportunities and personalized programs have the potential to deliver a solid foundation towards improved child and maternal health through adolescent informal learning.

Chapter 3-Data

This chapter explains the research, design, methods and analysis used in the current study. The main question I am addressing throughout this study is: will creating a comprehensive, cost effective and sustainable form of health education influence adolescent girls' attitudes towards reproductive and perinatal health services, and will this education have the potential to improve child and maternal well-being? Qualitative methods were used for collecting data including informal interviews and focus group discussions. Interview participants included females between the ages of 20-45 with children, while focus group participants were females between 15-19 years. Participants were selected through random sampling. This chapter will describe the criteria for participants, procedure of the study and an explanation of data analysis.

3.1 Methodology

The current research is best explored through qualitative methodologies. I chose this form of methodology because it was the most relevant to my research question, and allowed me to gather information to guide the analysis. Mayoux (2006) expresses that qualitative research is not aimed at a "precise measurement of a predetermined hypothesis, but a holistic understanding of complex realities and processes where even the questions and hypotheses emerge cumulatively as the investigation progresses" (p. 116-118). Using a qualitative methodology also helps with creating unique concepts, ideas and insights of individuals and better understanding their motivations and perspectives (Grossoehme, 2014). The methods used to collect information on women's experiences with primary health, and health and education services, were informal

interviews and focus group discussions. Both of these methods allowed for participants to describe their experiences and feelings. The information gathered from the informal interviews and focus group discussions were analyzed across the different individuals and groups for patterns and similarities. Before the interviews, the study and its purpose were explained to the participants through an interpreter. A consent form was read to the participants, which explained that they did not have to answer questions they did not wish to, and that they were able to withdraw from the study at any time. Confidentiality was difficult to fully control during the focus group portion of the study, because there were multiple individuals involved, however the importance of confidentiality was explained. In the role of the primary qualitative researcher, I became more of an instrument for analysis. Through taking these steps, I was able to fully embrace participating directly within the research (Golafshani, 2003). This study received REB clearance17-167 from Saint Mary's University in Halifax, Nova Scotia, Canada, as well as clearance from UWA to conduct research in the Kibale National Park.

3.1.1 Thematic Analysis

The data analysis was carried out using a thematic analysis of the transcribed focus group discussions and informal interviews. Braun and Clarke (2006) define thematic analysis as, "a method for identifying, analysing and reporting patterns within data" (p.76). The goal of using this method of analysis is to interpret and recognize important themes in data and uses themes to increase understanding or raise an important point about an issue (Clarke & Braun, 2013). There are two levels of themes that contribute to the analysis: semantic and latent. Themes at the semantic level look at the

"surface meanings of the data and the analyst is not looking for anything beyond what a participant has said or what has been written", while those of the latent level look to "identify or examine the underlying ideas, assumptions and conceptualizations, and ideologies that theorized as shaping or informing the semantic content of the data" (Braun & Clarke, 2006, p.84). Applying a thematic analytical method to the data is an interpretive approach that embraces the exploration of concepts and themes (Saunders et al., 2012), and is a good method to use with qualitative research involving interviews and open group discussions (Myers, 2009). The approach to thematic analysis in this research looked at grouping large data sets into categories by identifying prominent issues (Neuendorf, 2002). The interviews with women and focus group discussions were translated by two field assistants from Rutooro to English after each response and then further elaborated on after each session with me. The data was then organized and classified under specific categories that demonstrated similar patterns, and further identified connections (Jennings, 2001). There was no computer software used to code the data received, since the final data collected was a manageable amount to be analysed without using software.

3.2 Positionality in the Field

Working in the field of international development requires us to understand the many facets of self; including our social identity as a researcher, and the power of privilege shaping our constructs (Rose, 1997; Madge, 1993; Wilson & Hayes, 2002). A researcher's positionality, in relation to their nationality, race, age, gender, sexuality, social and economic status, has the ability to affect field research and data collection, by

situating the knowledge being expressed (Rose, 1997, 305; McDowell 1992, 409 & Madge, 1993, 296). Carrying out my master's fieldwork in the Kibale National Park in Uganda was both a humbling and eye-opening experience. It allowed me to gain a better appreciation of the resources that readily surround me and bring relative ease and understanding to my life. Living with minimal resources, villagers gain their knowledge from experience and teachings shared across generations. Their learning is highly influenced by different cultural understandings of interpersonal space in everyday livelihoods and realities, with most people using the same traditional methods for generations. This reality provides a deeper understanding towards the difficulty in making changes and introducing new practices into one's life since the perceived change does not always have instant results.

I chose to go back to Uganda after my initial experience working on a health pilot project during my undergraduate degree at McGill University. I recognized there were still unanswered questions in relation to health, wellness and community education to explore with the women and adolescent girls of the Toro region. Specifically, there were opportunities to explore their perception and experiences related to child and maternal health, and the barriers that exist. Having previous contacts in the villages, and work colleagues helped create the study design, and receive the necessary community support to engage with four villages, and interview women and adolescent girls.

In addition to the community supports in Toro region, I was also fortunate to have the generosity from Saint Mary's University, funding committees and donors who supported this research and work. I received financial aid through three awards and grants, which funded my travel, research and living expenses in Uganda. These awards

included the International Travel Fund for Graduate Student Thesis Research in the Social Sciences and Humanities, the VPAR International Mobility Award, and the International Development Initiative Fund.

Conducting qualitative research is a difficult and delicate undertaking. It requires getting close to individual's personal lives and observing through the acknowledgement of your own biases. As a female raised in rural Québec, I am an outsider to the communities where I will be doing research. Coming into a village with different beliefs, social structures and livelihoods, and asking probing questions, is a rare opportunity that few people experience. To be able to gain insight into a different way of life holds great privilege because not everyone is able to interact with other societies. However, if it is not carried out in a respectful manner, research holds the potential to be detrimental to both, local livelihoods and global understandings.

Being a qualitative researcher, in a developing country, requires me to look inwardly towards myself and situate my knowledge, position and reflexivity in my work (Rose, 1997, 305). Reflexivity is described as a way to understand how we can situate knowledge, by avoiding the "false neutrality" and the universality of "academic knowledge" (Rose, 1997, 306). In the world of qualitative research, this is not a new concept. However, in the field of development, it is not always acknowledged. McDowell (1992) says "we must recognize and take into account our own position, as well as that of our research participants, and write this into our research practice" (409). Looking at knowledge through a postcolonial and post-Marxist lens, Rose (1997) supports and argues that "all knowledge is produced in a specific circumstance and that those circumstances shape it in some way" (305). Pretending to be an omniscient researcher

only hinders the learning process and causes us to be more short-sighted towards the true origins that mark the knowledge we are receiving (Rose, 1997; Haraway & Harding, 1991). Rose expresses that "we must situate ourselves and interpretations of the interviews by reflexively examining our positionality" (Rose, 1997, 305).

Constructing my study design, and questionnaires before heading into the field, required awareness of my position as a researcher in situating my own knowledge basis, and to be mindful of each individual that would be reflecting on their answers (Rose, 1997). Through my question formation, I was hoping to create a dialogue that discussed their experiences and realities. The women I interviewed and adolescent girls that participated in focus groups were sometimes sceptical by my presence in their day-to-day practices. However, they were mostly willing to participate in the research after I introduced the study and allowed them time to ask questions and decide if they wanted to contribute. Having local women who know the villages greatly helped when they assisted me in asking questions and creating discussion amongst the girls.

One of the main difficulties I experienced was the language barrier. Having the interviews and focus groups done completely in the local language, Rutooro, allowed the women and girls to engage with the questions more fluidly and eliminate disconnect. However, with translations and the nuance of language, details in certain explanations and feelings women and adolescent girls expressed were more difficult to grasp sometimes.

Truly understanding one's positionality and presence, not only while doing field research, but also in the field of international development studies, requires an understanding of integral theory. It is about connecting with yourself internally and what

you evoke externally towards others. This concept holds validity for when you are discussing the collective and the individual effect that one has on the other.

Our position of power in doing fieldwork is not a means to shy away from engagement and doing qualitative research, but to use methodologies, processes and practices that put the individual and the collective at the front in being the true agents that can drive social change. As researchers, we must remember that to assume one's livelihood and project your own realities on to them will only cause more disconnect and harm.

3.3 Primary Data

For the data collection process of my research, I used extensive documentary evidence from primary and secondary sources. The main sources of information supporting my methodology are through specialized documents including: (1) Government documents from Uganda; (2) NGOs; (3) Large international organizations such as the United Nations (UN), that often align with government projects; and (4) Individual research by universities and students that completed work in this topical area. This data provided background information and a well-developed assessment of child and women's health, as well as an analysis of the current situation of child and maternal health in sub-Saharan Africa.

Primary data sources help analyze both the challenges and future priorities for the nation in regard to increasing the amount of skilled birth attendants; meeting family planning needs and increasing primary health resources; improving the quality of healthcare and increasing community-based newborn care; and health financing. These

sources are also able to provide extensive context as to what the country is currently facing with annual reports, population statistics, health financing, education and literacy rates, maternal mortality ratio and fertility rate, as well as demonstrate key trends, timelines and challenges. Government documents are able to carefully explain the current situation in health sector initiatives and investments in Uganda. These documents also address the key initiatives and investments outside the health sector such as education, innovation, research and infrastructure, water supply and sanitation. Lastly, and most importantly, the government reports provide lessons learned from previous policy making and implemented projects, as well as the future priorities for the government to improve on including the health workforce, quality of care, newborn health, financing health services and research and innovation (WHO, 2015). This study will draw on interviews, focus group discussions, and observations with professional medical personnel, NGO workers, adolescent girls and mothers in four villages of the Kibale National Park. This research is complimented by the analysis of existing academic literature on community interventions and informal education at the village level.

3.4 Field Data

The study was conducted in the Kibale National Park in western Uganda. Data for the focus groups and informal interviews were collected in four villages in the Kanyawara Ward Area and Kiko Sub County: Kyamugarra, Kanyansohera, Makobyo, Kasojo. Data was collected in one public district hospital in Fort Portal: Buhinga Hospital, and two private clinics: Kiko (Kiko Health Centre III) and Kanyawara

(Kanyawara Clinic). Data was also collected with two NGOs, one is Kasiisi (the Kasiisi School Project) and one in Kanyawara (the Kibale Mobile Clinic).



Figure 2: Map of the Kibale National Park, Uganda (Ngogo Chimpanzee Project, 2018).

3.4.1 Techniques

The two techniques used for my research and qualitative data collections were: informal interviews and focus group discussions. The informal interviews and focus group discussion guides included open and close-ended questions to best understand women, NGOs and health professionals experiences with: 1) daily life practices in connection to primary health care (water and sanitation); 2) their understanding of child and maternal health; 3) core factors that contribute to the use of maternal healthcare services and family planning; 4) health education support that is received outside of a formal school system; and 5) suggestions for improved care and information access to women and girls in the villages during pregnancy and postpartum period. The interview guides were created to facilitate delivery of the questions and allow women to openly express their point-of-view.

3.4.2 Informal Interviews

Women (20-45 years)

- March 29 April 4, 2017
 - Village A: Kyamugarra,Kanyawara, Kiko
- April 5 April 12, 2017
 - Village B: Kanyansohera,
 Kanyawara, Kiko

- April 18- April 20, 2017
 - Village C: Makobyo,
 Kanyawara, Kiko
- April 24-April 26, 2017
 - Village D: Kasojo,Kanyawara, Kiko

I conducted informal interviews with 15 women, ranging in age from 20-45, in four villages in the Kibale National Park, equating to 60 women in total. Open and close-ended questions allowed for a steady conversation. Interview questions were created by me and then carried out by my field assistant. My field assistant would ask the question then record the answer in English on a paper. After interviews were done for the day, we would discuss women's responses. Denzin and Lincoln (2005) explain that informal interviews "provide greater breadth of information and help to provide greater breadth of information" as well as help provide insight into "the complex behaviours of members of society without imposing any a priori categorization that may limit the field of inquiry." (p.705). Using one-on-one interviews allowed me to better understand women's attitudes towards primary health practices with regards to hygiene and sanitation methods used through their daily routine, their understanding of maternal health practices and what support they feel that they have readily available at the pre-, peri-, and post-natal stages of development. During the interviews, I was also exposed to women's attitudes,

experiences and decision-making processes.

3.4.3 Focus Groups

Adolescent Girls (15-19 years)

- April 9, 2017
 - Village A: Kyamugarra,
 Kanyawara, Kiko
- April 30, 2017
 - Village B: Kanyansohera,
 Kanyawara, Kiko

- May 13, 2017
 - Village C: Makobyo,Kanyawara, Kiko
- May 14, 2017
 - Village D: Kasojo,Kanyawara, Kiko

Along with the informal interviews, I carried out four focus group discussions in each of the same villages (Kanyawara, Kanyasohera, Makobyo and Kasojo). Focus group discussions took place with 8 to 15 adolescent girls ranging from age 15-19 years old with two field assistants. One of my field assistants would ask the guiding questions in Rutooro, while the other field assistant would record adolescent girls' Rutooro answers in English. After each session, my two field assistants and I would go through the girl's responses, and I would get in-depth responses in English for what the girls were saying. Using focus group discussions as a method provides access to a larger body of knowledge and can be highly participatory and empowering. It allowed for women to feel comforted by each other's presence. According to Berg (2009), "Focus groups place the interviewer on equal footing with the women, and understand how group members "arrive at, or alter, conclusions" about maternal health choices. (p. 165) Focus groups are also specifically beneficial for exploring socio-cultural issues, since they allow for "unanticipated topics [to] arise in the course of the group discussion" (Berg, 2009, p.165).

3.4.4 NGO/Hospital/Clinic Interviews

Interviews at Public and Private Health
Facilities

- May 8, 2017
- May 19, 2017
 - o Kanyawara Clinic (Private)
- May 15, 2017
 - o Buhinga Hospital (Public)

Interviews with NGOs

- May 7, 2017
 - Kibale Mobile Clinic
- May 17, 2017

- Kiko Health Center III (Private)
- Kasiisi School Project

Observations with Kibale Mobile Clinic

- May 4, 2017
 - o Bundibugyo District
- May 11, 2017
 - Bundibugyo District
- May 18, 2017
 - o Rugombe District

Lastly, I decided to interview a nurse at Buhinga Hospital, formally known as Fort Portal Regional Referral Hospital, in the town of Fort Portal, part of the Kabarole District. It is a referral hospital for the districts of Bundibugyo, Kabarole, Kamwenge, Kaseses, Ntoroko and Kyenjojo (Kabarole District Internal Portal, 2003). As a public hospital, the Uganda Ministry of Health funds the services and general care in the hospital is free. I then interviewed one doctor at the Kiko Health Centre III. This is a licenced health centre that is privately owned by the Kiko Tea Factory, which is located on the tea plantation in Kiko. It mainly services the factory workers, but also others in the Kiko Sub County, who must pay to use the services (Uganda Medical and Dental Practitioners Council, 2019). I also interviewed one nurse at the Kibale Health and Conservation Clinic, also known as the Kanyawara Clinic. The clinic was built in 2007 by a group of McGill University Students with the support of numerous donors and under

the lead of Dr. Colin Chapman to provided a desperately needed clinic for the local community. The clinic today relies on outside funding to employs a full-time nurse, free consultations, and at-cost medications (Chapman, 2019a). I also interviewed a doctor, who was associated with the Kasiisi School Project, and the Kibale Mobile Clinic. The Kasiisi School Project, is a program started by Elizabeth Ross and Richard Wrangham in 1997, to enhance opportunities of local children to receive schooling (Kibale Chimpanzee Project, 2011).

I also interviewed a UWA ranger who worked with the Kibale Mobile Clinic. The mobile clinic grew outside of the Kibale Health and Conservation Clinic, and now regularly travels around Kibale National Park bringing basic health care, family planning, deworming, HIV/AIDS detection, treatment, and counselling, vaccinations, and health. (Chapman, 2019b).

I conducted these five interviews in English. Each interview took place separately, at a time that was convenient for the interviewee. Since this research is interdisciplinary, I felt it was important to gain insight from the multiple viewpoints, and various influencers on women's health understanding.

Chapter 4-Analysis and Discussion

This chapter is aimed to review the main findings of my research study through mother and adolescent girls' attitudes and experiences with maternal health and education. The analysis of the data is based on the information collected from informal interviews with women, NGO workers, and health care professionals, as well as focus group discussions with adolescent girls. It examines participants' responses to questions regarding needs, behaviours, available resources and preferences regarding maternal health and education. The central themes discovered through a thematic analysis of the research, towards factors that affect women's health seeking behaviours were: access to culturally appropriate education, geographical barriers to health access, and cultural constructs of adulthood. Factors that affect women's health seeking behaviour were guided by the Andersen model through data collection and analysis.

4.1 Geographical and Financial Barriers to Health Access

Living in the Kibale National Park of the Kanyawara Ward and Kiko Sub County, women and adolescent girls' face multiple barriers that affect their ability to receive optimal care. Through interviews with women and NGO workers, as well as focus group discussions with adolescent girls, they described the need to consider their own economic and geographical barriers towards using formal health facilities. Delays to seeking care were split between the physical accessibility and affordability. For the women and girls living in the four villages interviewed, both the Kiko Health Centre III and the

Kanyawara Clinic are within a 5km walking distance. However, only Kiko Health Centre III provides maternal care services.

Also, since it is a private center, villagers must pay to use the services. The next closest public health facility, Buhinga Hospital, is about a 30-minute motorcycle ride on variable roads. Geographical access in the Kibale National Park encompasses both the location of health facilities and the travel time to get there (Dixon et al., 2014). Travel time only gets further extended when it is combined with transportation availability, and poor road conditions, especially with unpaved roads during the rainy season, which further leaves rural communities at a disadvantage (Kitui, Lewis & Davey, 2003).

Apart from geographical barriers, this study found financial barriers affected the utilization of health care services. Financially, since jobs are primarily agriculture based, families have little income at their disposal to go towards health matters. Low-income levels and high unemployment, cause families to struggle to meet the minimum living standard and access to primary health care, such as clean drinking water, hygiene and sanitation, as well as proper nutrition. Having to pay for to see a nurse or doctor for health matters is seen as luxury that few can afford. When adolescent girls were asked about what they felt the main barriers were to receiving proper perinatal health care and if there was equitable distribution of health services in the in the community one girl said,

"The lack of financial resource to afford going to the clinic or hospital is a barrier" – Focus Group Discussion, Kanyansohera, 2017

Another adolescent girl added to this saying,

"There is no equitable distribution of services. Those who have more money can afford to pay more for services and are treated better" – Focus Group Discussion, Kanyansohera, 2017

The further issue that arises is women's autonomy towards making personal health decisions. Women in the villages are often reliant on their partners or parents to pay for health care services. Being economically dependent causes extensive delays to seeking maternal health care, especially when it is for routine check-ups and maternal and perinatal care advice. These findings also align with the health systems factor of Andersen's health behaviour model, as well as the realities women face when time and money need to be taken for their own needs.

Women and adolescent girls did express however, that despite the distance, most were committed to using formal health services during pregnancy and delivery. This finding was linked to women having access to free transport to health facilities. Almost in all of the focus group discussions The Baylor Project, formally known as the Boda for Mother's Voucher Program in Uganda, was quoted, in improving women's use of formal health services. Baylor-Uganda received funding from Every Mother Counts, an organization, for a two year project to be implemented between October 2015 to September 2017, to provide pregnant women with free transportation to the closest health facility from their communities, covering all four antenatal care visits, the delivery and one post-natal care visit. The Boda for mother's project has contributed to positive results for expecting mothers to both arrive quickly for their delivery and not miss any important appointments (Baylor-Uganda, 2017)

"The Baylor project provides free transport to mothers during prenatal, labour, and postnatal stages of pregnancy" -Focus Group Discussion, Kasojo, 2017

These findings demonstrate that free transportation to and from the hospital for maternal and perinatal care has an impact on women using services available, and highly reduces their delay to seeking formal care. The "no costs" involved towards essential care seems to be extremely effective towards improving child and maternal survival rates. These results also clarify that most villagers are in fact aware that they should use formal health services when it comes to child and maternal health, which is consistent with numerous other studies done in developing countries. The results also emphasize the doubts that mother's face when it comes to knowing what reproductive health methods they should be using and what health issues they should be seeking help and advice for. Often times most villagers try to address health problems on their own. Discussions with NGOs and health professionals in the area said that women have limited knowledge on maternal and perinatal care, especially concerning the timeline for visits before the pregnancy. The decision-making process for seeking formal healthcare is deeper rooted with the complex challenges that women face on a daily basis. This finding is supported through the literature and theoretical framework, because it aligns with women's perceived need and predisposing factors that affect their health seeking behaviour (Anderson & Newman, 2005).

4.2 Access to Culturally Appropriate Education

Access to health promotion information and education is highly limited in the four villages that participated in this study. Through the analysis of the results, there were two main difficulties contributing to access to poor health information. The first difficulty was women and adolescent girls do not have sufficient and timely access to information. The

second difficulty was the reality of health care professionals not having enough resources at their disposal to offer continuous information and medical advice. A lack of accessible and culturally appropriate child and maternal health education has impacted women and girls' responsiveness to receiving care and being proactive about their health. Culturally appropriate education is defined as, "a pedagogical approach that is student centered and authentic. It is rooted in the belief that students and their culture are intricately intertwined and that teachers can intentionally enhance student learning by embracing and utilizing various aspects of each student's culture" (Seriki, 2010). When the girls were asked if there was a local health team in the village that came around often to provide information, a girl in Kyamugarra responded,

"Sometimes. There are village health trainers that come from Buhinga to mobilize people to learn about family planning, provide medication and usually encourage people to boil water, put their garbage away and take ARVS however, the village health trainers are just trained people, not doctors or nurses. They just come into the village tell people some information and then leave, they don't provide in-depth education or actually train anyone in the village." - Focus Group Discussion, Kyamugarra, 2017

The time frame for women and adolescent girls receiving information about reproductive, maternal and perinatal health is extremely important (WHO, 2018b). In the Kiko sub county, education around reproductive and sexual health is taught in local schools although it starts during secondary level. Through interviews and focus group discussions, women, girls and local NGO workers expressed that many girls do not make it to secondary levels of education due to early drop out. Accessing reproductive health education must be acquired through a formal health facility, which is compounded with

another set of difficulties due to women and girls' attitudes and basic access towards using formal health facilities. Adolescent girls described that they understood the value in using the services, however it is usually only after they had their first child. The highest level of women delaying is during the second stage of their pregnancies or when they start getting contractions/ labour pains. One NGO worker spoke up saying,

"Women's opinion is often bias towards the public health system because they based it off of previous experience and comments that other villagers have made about being shamed when they go, so they automatically think that every health worker will act towards them in the same way." -Kibale Mobile Clinic, Kanyawara, 2017

This delay in seeking care is combined with a lesser-known issue of women and adolescent girls' attitudes towards public health systems and workers. There is a fear of judgement that makes adolescent girls not want to use formal health facilities when they become pregnant. A girl in Kyamugarra stated,

"Young girls feel ashamed about being pregnant so young and don't want to go to the hospital or clinic because they hear stories about how other girls get harassed by the nurses for being pregnant." -Focus Group Discussion, Kyamugarra, 2017

However, the perceived disappointment adolescent girls internalize from health workers is usually a result of the stress experienced by health care professionals who do not have enough resources, time and personnel at their disposal to provide girls with timely information and care. Once women are in a formal health care system, information is provided about maternal and perinatal care, the importance of regular check-ups, nutrition and breastfeeding.

Despite the poor funding and limited resources that are available in public health, a pregnant woman and their newborn will be immunized for free, and tested for malaria and HIV/AIDS. However, through interviews and focus group discussions, the importance of being tested for these diseases is compounded with the fear many women and adolescent girls face of testing positive for HIV/AIDS. Testing positive translates to being shamed and seen as "dirty" to other villagers. Health workers and health organizations expressed that it is very common to see pregnant adolescent girls around the villages. When asked if adolescent girls come to the clinic to ask for help/ advice about childcare, family planning and reproductive health, a doctor interviewed at the Kiko Health Centre III stated,

"Yes, but only some come to ask for advice when they are pregnant. When pregnant women and girls come to the health center we educate them on maternal and child health care in a group and provide a birth plan. We inform mothers-to-be on how to take care of themselves and what foods they should be eating. For special cases, like a women pregnant with twins or ones who might have complications, we will refer her to a bigger hospital." - Kiko Health Centre III, Kiko, 2017

A nurse from the Kanyawara Clinic described that in the clinics, there are usually no maternal and perinatal care health services and they rarely see adolescent girls, because they want to hide from the stigma around being young and pregnant. During the interviews at Buhinga Hospital and Kiko Health Centre III, a doctor said that education is available at the health facilities. Teachings usually include the importance of using a mosquito net, covering children when they are young to avoid bites, and breastfeeding only for the first six months of a child's birth then slowly incorporating solids, which has helped reduce malnutrition and information on how to treat diarrhea. They also tell mothers to watch out for the danger signs that come along with their pregnancies. If

nurses see that there could potentially be some complications during delivery they will advise women not to wait and report immediately to the hospital. There is some first aid treatment advice given to parents and/or guardians, discussing danger signs and providing them with skills on how to: identify diseases/ issues and what they can do to help, the importance of seeking medical care right away (should not wait to get care because disease/ sickness can escalate quickly), when should they seek medical care (reinforce that if they need to get better services then they need to go to a bigger health facility, try to improve their judgement (avoid self-medications)- usually they don't know what they are treating/it's the wrong treatment and the medications can be dangerous, when to seek medical advice, preventative measures to avoid sickness for themselves and family and nutrition for when you're sick and pregnant. Physicians say that patients are open to receiving formal education/information. However, most prefer to use their own traditional practices. Sometimes, if clients come to the clinic and don't receive medication, because they don't need them, and the nurse/ doctor just provides education on how they could help remedy their situation, the patient feels it was a waste of time going. There is still only around half of the mothers using health recommendations provided and reporting that they saw the benefits. The ones who have seen improvements are often vocal about how the doctor/ nurses' recommendations helped.

Improvements that have been seen include: women using family planning methods and the maternal and child health services available. However, some of the cultural and traditional practices that villagers use are, if you go to a traditional healer you receive better care and results then going to a health center because there isn't enough resources/ nurses/ doctors to help them and they often feel rejected by the public health care system. There is also the belief that experience comes with age- so they believe

elders are the most knowledgeable about health and can give good advice, however, this is not always the case. Unfortunately, there are no emergency obstetric care services available in the communities; the only ones available are in formal health care facilities. Any patient that goes to a health facility is told about maternal and perinatal care and the importance of pre-, para-, and postnatal care, as well as family planning methods. For informal health education and community-based initiatives, there are few adolescent friendly health services that communities have access to. The only consistent services that exist are in hospitals and in schools.

Overall, there have been minimal interventions available to support these girls outside of public health systems. The most recent and reliable interventions is through the Kibale Mobile Health Clinic which started in 2014 to provide voluntary HIV testing, family planning, malaria testing and deworming, as well as at cost medication and free consultation. These services allow more women to use family planning methods and avoid early pregnancy. However, there is still a lack of an education program and follow-up with the medication and family planning side effects.

Mary Stopes is another NGO in Uganda that provides family planning and reproductive health services. Interviews with physicians and NGOs expressed that mother's overall health has improved because they are going for more routine check-ups, as well as following nutrition and health advice. They providing regular advice on the importance of family planning methods to avoid unwanted pregnancies and encourage mothers to get the necessary immunizations. Community health workers have been present in the villages; enforcing the importance of maternal and perinatal care. However, education is often only given at formal health facilities, leaving those at a

disadvantage who don't use the facilities. NGOs interviewed expressed that the distribution of health services are unfortunately skewed.

Education links to health behaviours of women and adolescent girls, as a predisposing characteristic in the use of health services (Andersen, 1995). Access to resources to facilitate timely and appropriate health education is a barrier that many health professionals, which affects women and girl's attitudes towards using the services. Unfortunately, this results in being proactive about their health and further delays to receiving curative and preventative care.

4.3 Social and Cultural Constructs of Adulthood

There are both social and cultural constructs intertwined within women and adolescent girls' attitudes and experiences with child and maternal health. These constructs are linked to complex socio-cultural factors and the gendered role women have in their households. Women's overall low level of education was highly linked to early marriage. Many women leave school before completing elementary. In addition, it was described that early marriage translates into a high number of pregnancies, often complicated ones because of women's youth age, leaving women with little change to look after their own health needs one they have cared for those several children. When the adolescent girls' were asked in focus group discussions how girl feel in the village when they become pregnant most said they felt terrible and embarrassed.

"They feel devastated. Especially if the person responsible for the pregnancy doesn't respond well to the pregnancy; then if there are rumours that go around the village that they are pregnant. Girls get talked about and called all sorts of bad names and

make them feel horrible about themselves." - Focus Group Discussion, Kanyansohera, 2017

Improvements that have been seen include: women using family planning methods and the maternal and child health services available. However, some beliefs remain, such as, if you go to a traditional healer you receive better care and results. Women stated that when you go to a health center there are not enough resources/ nurses/ doctors to help them and they often feel rejected by the public health care system. There is also the belief that experience comes with age. Women and girls believe village elders are the most knowledgeable about health and can give sufficient advice, however, this is not always the case. Mothers get told about the importance of getting maternal and perinatal care in a formal health facility, but sometimes they decide to talk to the elders in their villages first, to get advice and use traditional methods to help with birth. This delay in seeking formal care, when they use the traditional methods and birth their babies at home, can cause the labour to become prolonged and the baby has a high chance of becoming asphyxiated.

In looking at deeper ingrained issues and their affects. A large one is based on gender disparities and men's involvement when it comes to reproductive health. Women have little say in the decision-making process when it comes to their own bodies. Often times, pregnancy is forced on a woman, because men see children as a sign of status. However, most have little involvement in the maternal health process. Girls have always carried a higher burden then boys during their adolescent years because they often marry and have children at an earlier age. The inescapable progression then begins in which early marriage leads to increased pregnancy. Girls are then usually expelled from school or discouraged from attending because of the negative stigma surrounding them. Not

being able to complete secondary school contributes to low levels of education in how girls should take care of themselves. When asked during an interview if adolescent girls have enough support in their communities, an interviewee responded with,

"No, especially the ones not in school. They are often neglected in their homes and the village. They don't really have anywhere to go for counselling for advice and no one watching over them. Most parents do not have sufficient resources or advice to provide." - Kibale Mobile Clinic, Kanyawara, 2017

In connection with Andersen's model, this research revealed what women's decisions concerning health seeking behaviour were created by a combination of predisposing, enabling and structural factors, along with perceived need. Specifically, I was able to identify geo-economic barriers, socio-cultural influences and access to culturally appropriate education to influencing women and adolescent girls' health behaviour. Women's gendered role in the household, structures of the health systems, such as access, affordability and quality of care all affected the decision-making process (Majaj, 2013).

Chapter 5-Conclusions and Recommendations

The aim of this research study was to explore women and adolescent girls' attitudes and experiences with maternal health in Uganda. The reader will recall that the research question at the centre of this thesis is: Will creating a comprehensive, cost

effective and sustainable form of health education influence adolescent girls' attitudes towards reproductive and perinatal health services, and will this education have the potential to improve child and maternal well-being? The results revealed several barriers that limit women and adolescent girls' access to maternal health services and information access. The three main themes that were identified through interviews and focus group discussions were geographical and financial barriers to health access, access to culturally appropriate education and cultural constructs of adulthood. These defining themes are supported and framed through Andersen's health behaviour model.

5.1 Summary of Research Findings

The research demonstrated that women are aware of the maternal services available and deliver their children in a formal health care facility. However, there are still barriers such as cost, transportation and cultural beliefs that impede mothers from receiving proper care. With limited money and resources, each family weighs the opportunity cost of using formal care services over other livelihood necessities.

Adolescent girls remain the most vulnerable group at the village level. Early pregnancy causes them to be removed from formal school systems; sometimes disowned by their families and shamed when they go to health centres for getting pregnant at such a young age. Girls are often only making it through primary levels of education. Women and girls' experiences at health centers get filtered down to other women as being a negative experience and causes women to avoid using them.

There is also fear connected to going to the hospital because of the necessary tests and vaccinations that must be had when they become pregnant, specifically HIV/AIDS

testing, and the negative stigma that surrounds them from family and friends if they test positive. It isn't an issue of awareness that surrounds women and adolescent girls towards necessary maternal and child health practices, it is more the need of providing sufficient education, support and advice to shift individuals' attitudes and work towards preventative strategies over quick fixes. The main difficulties that arise with this are the deeply engrained social and cultural values of the society, such as men's views towards women and the use of family planning. There is as much need to provide important information towards child and maternal health to women as there is to educate the male population about the need to support women and importance of the freedom of choice.

5.2 Limitations Towards the Research

There where certain limitations towards the research, both in the methodology and its timeline, as well as the research design. One of the limitations of the study was the language barrier. I felt it was important to conduct the interviews solely in Rutooro, instead of having them translated at the time. I decided to have my field assistant write notes and the comments/ answers given instantaneously to then be further explained and expanded upon to me after the interview and focus group session had occurred. Precautions were taken to ensure rigour in the process and to ensure that language limitations did not restrict the amount or quality of data or rigour in the research process.

For the study design, since data collection was only done over a two and a half month period, it is possible that a wider range of women and adolescent girls' unique experiences and attitudes were not documented. There was also limitation towards how participants were selected. Since the research was only carried out in a small area of the

Kibale National Park, women's responses and experiences were more centralized, and provided less of a varied overview of women and adolescent girls' attitudes and experiences. In some of the more rural areas of the National Park, there are no larger public hospitals available and only smaller clinics which can take up to an hour to access on a motorcycle, especially on the variable road conditions. There was also the potential limitation towards biased responses with the health professionals that were interviewed, and having a positive experience with patient aid when they would come into their health facility. Another set of limitations was with the use of a qualitative approach. As stated by Barbour 2000, "researchers find it difficult to investigate causality between different research phenomena. Qualitative research is complex to explain the difference in the quality and quantity of information obtained from different respondents and arriving at non-consistent conclusions" (Barbour, 2000).

Using Andersen's health behaviour model as a theoretical framework also had its limitations since the model is more focused on a single individual and not a collective. Because of this I tired to make sure to provide a more holistic view of health care in the data collection and analysis process by interviewing more than just women and adolescent girls, and incorporating NGO workers and health professionals.

5.3 Recommendations for a Health Education Plan at the Village Level

Improving child and maternal health through informal education needs to be focused on raising awareness towards health practices, instead of simply providing facts and telling them to make the change (Nyamu-Musembi, 2005). When only health information is provided, the connection and context to their local and daily lives is not

incorporated into this information. Adolescent girls must see and realize that the goal of this information is to improve their health and the health of their children. Educating in developing countries should be centered on raising awareness and motivation.

The main focus should not be on sharing information about primary health care practices, but to create overall awareness. The reasoning behind this approach is that if someone is made aware of an issue, they will be better informed of the problem, understand where it is coming from, and see the significance of wanting to do something to change it (Lankester, 2007). Freire (2001) and Dewey (1998) suggest "the goal of experiential education is that we learn how to transform experience into knowledge, that we use this knowledge for our individual and collective development" (Dewey, 1998). Villagers need to be able to see the direct benefits and receive positive reinforcement for their effort in trying to improve their routines. The ultimate goal in using this method is to help reduce the dependency of villager's living in rural areas on healthcare professionals. Second, to create a more sustainable form of learning and act as a knowledge transfer through the community and future generations. Lastly, it will safeguard local and traditional forms of understanding with keeping the community's interests at the center (Jewkes & Murcott, 1988).

The sustainability education plans depends on how I will be presenting the information and how easily it can be integrated into the lives of adolescent girls. Working as a partner in the community will hold more value than merely dictating what they should be doing to maintain better maternal and child health. Implementing an education plan must begin with building a solid relationship and trust with the villagers and adolescent girls before trying to implement any educational program. The plan will never be fully successful and act as an "agent of change" unless the community establishes

confidence in the motives of the individuals helping to educate (Lankester, 2007). After a base of trust and understanding has been developed, more interactive learning can begin.

The stages of a successful education plan are: increased awareness, information and understanding, motivation and incentives and action. Through this research, discussions with Ugandan communities have demonstrated that the necessary areas of focus for education are: being proactive about health, family planning and follow-ups, and male education. Accessible teachings need to be put in place that discusses the importance of being more proactive with child and maternal health. This includes early detection of illnesses, seeking out professional antenatal care at the beginning of a pregnancy and important livelihood practices to adopt to keep women and their children in optimal health with their available surroundings. Early education on child and maternal health increasing awareness and allows for girl to be more proactive. A large part of improved adolescent health is with family planning. Family planning methods have been vastly promoted among the villages, however, little has been done to provide detailed information about the methods, as well as following up with the women that are using a method. Women expressed frustration when it came to being on a method, and often because of uncertainties as to why their body was reacting in this way; they went off the method and became exposed to unwanted pregnancy, because they felt that they had no other options. Stigmas need to be changed surrounding reproductive health and women need to be supported in seeking help and holding decision-making power over their bodies. Changing stigma is a difficult undertaking, especially when many of the traditions and outlooks are deeply ingrained in everyday practices in the region. However, an important place to start is with educating the male population and working towards the issues on gender disparity. Men in this region see children as a sign of status;

the more children you have, the more respect you hold within the community. However, the status that is held, does not include the level of care required to support women and children. Male power and decision-making in their families and communities is the core of where change needs to begin. Males need to be included in the child and maternal health education process and the importance of reproductive health. There must be a shift in cultural values and power relations that provide women with ownership of their bodies and decision-making processes, as well as a shift in attitude in all of society to understand and support sexual and reproductive health (Mersha, 2018).

Women's experience with health care and education must be continuously reviewed. The power of a health education plan at the village level is that it is a fluid process. Education needs to shift with necessity. Teachings and availabilities must continuously aim support those that need it most. It is important to remember that any development work must be seen as a process instead of and end point. All development work is a small part of a bigger process, where individuals are trying to contribute to the learning. The hope behind this research is that it will transform gender disparities and improve child and maternal health. Passing on knowledge about maternal health to others through education and training programs is a simple and effective measure towards healthier lifestyles (Jewkes & Murcott, 1988 & Nyamu-Musembi, 2005).

I envision the implementation of a health education plan as a mechanism for promoting low cost education that promotes maternal health for adolescent girls in three levels. First, would be the importance of creating a safe space that adolescent girls feel comfortable enough to engage in open dialogue about their experiences. I see this taking place in someone's home or another open, yet isolated place within a village. Using a community space, speaks to the low-cost structure I envision for the health education

plan. Second, a local village woman would be brought on as a facilitator to find out what women and adolescent girls' feel they need more help and/or advice with. Lastly, I would begin to invite males to participate in the conversation about child and maternal health, and hope that with time, men would become more aware and supportive of females in the villages.

5.4 Directions for Future Research

This research was carried out to gain a better understanding of health practices towards child and maternal health and how an informal, health education plan could fit into the process. It is important to conduct a longitudinal study that implements an education plan at the village level. One focus would be to develop a simulation health education program, and monitor responses from women and adolescent girls. In addition, these programs should follow adult education techniques that focus on local context guiding the pedagogical development and integrating learners into the establishment of the learning objectives, curriculum and teaching.

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Appendices

Appendix A: Spoken Script for Informal Interviews and Focus Groups Name of Interviewer: Name of Field Assistant/ Translator: Date: ______ Start Time: _____ End Time: Household ID: _____ Village, Ward, Sub County

*To be read to FEMALE HEAD OF THE HOUSEHOLD/ FOCUS GROUP before initiation of the interview:

Hello, my name is Shannon Gavrilchuk and I am a Master's student at Saint Mary's University in Canada. I have been researching under-five child mortality in Uganda and the possibilities for an informal education plan to be put in place for adolescent girls at the village level.

I am reaching out to you to see if you would be willing to take part in an interview, which will provide feedback on child and maternal health and education from your perspective. The questionnaire will take approximately 60 minutes. If you agree to participate, I will ask you questions and record your answers on the questionnaire. I am using this information for academic purposes only. Your participation is completely voluntary. If you choose to participate, but prefer not to answer certain questions, you are free to do so. You are also able to end the interview and withdraw from it at any time. Along with this interview, I plan to interview other village members, as well as nurses and NGOs working in health care in the area.

This research has been reviewed and approved by the Saint Mary's University Research Ethics Board (ethics@smu.ca or 011 (902) 420-5728). The information you provide will be kept completely confidential. At no point will your name of your family's name ever be recorded on the questionnaire. Do you consent to participating in this interview?

Research Ethics Board File #17-167

Appendix B: Letter of Information for Interviews (Health Professionals and NGOs)

Title of Study: Reducing Child Mortality in Uganda: Improving Basic Health Practices of Adolescent Girls Through Informal Education

Please keep this form for your records.

Introduction

We invite you to take part my research study. I am doing this research as a master's student at Saint Mary's University, as part of my International Development Studies degree. Your participation in this study is voluntary and you may withdraw from the study at any time. The study is described below.

Purpose of the Study

The purpose of this study is to investigate the perception of mothers and adolescent girls on the spread of disease, and explore the use of simple and sustainable education programs to reduce under-five mortality. Educating young women about communicable diseases, as well as the health risks involved in birth and neonatal development will help women make informed decisions, which may ultimately reduce mortality. Thus, if young women become pregnant, the goal is that they have the information and tools to better care for their own health and sanitation during pregnancy, as well as during newborn development. The long-term objective is that this knowledge will be retained by the communities and passed down through generations in a sustainable manner. I plan to gain valuable knowledge about the knowledge gaps in health practices that adolescent girls currently face in Uganda (specifically related to childcare and maternal health). Through informal interviews with mothers and adolescent girls, as well as through group discussions and observations, I hope to gain a better understanding of why disease is spreading so easily, what the main causes of child mortality are, and how we could implement a basic health care and sanitation program. I will then hope to take this knowledge and put together a potential health education plan at the village level. The questions will be: (1) can the plan attract and hold the attention of adolescent girls? (2) Will it be easily implemented and cost effective? (3) Will the plan be sustainable?

Study Design

This study will draw on interviews, group discussions, and observations with professional medical personnel, NGO workers, adolescent girls and mothers in four villages in the Kibale National Park. This will be in addition to analyzing the existing academic literature on the topic of community interventions and informal education at the village level. A successful outcome of my field research will be the completion of multiple informal interviews with adolescent girls about their current knowledge surrounding childcare and maternal health at the pre-, peri- and post-natal stages of development. Also, to have engaging group discussions with adolescent girls to better understand the prevalent diseases in the area and health care practices. Part of the discussion will involve listening to the locals' impressions about the current health curriculum in schools, and what they would like to have more information about.

Lastly, through my observations, I will need to see if girls and mothers are willing to incorporate sanitation, personal hygiene into their day-to-day lives and remain careful about nutrition for themselves and their children.

The data from these case studies collected from human participants will be based on a series of semi-structured in-person interviews and some limited on-site observation. The interview process, including the review of the consent form, should not exceed 1 hour. I will notify participants of the time every 15 minutes in an effort to keep interview times within the quoted 1 hour timeframe.

In addition to this, you will not be named in any written material; all names and identifiers such as workplace, job title, as well as all possible identifying references to organizations, individuals and specific incidence will be eliminated from the text (as they are not relevant to the specific goals of this study). However, due to limited sample size, if reference is made to interviews in various locations, this may impact anonymity; if you are uncomfortable with this sample size you can withdraw from participating at any point. In instances where you request to be identifiable in the research, I will review with you the risks associated with the study and reiterate that you can withdraw from the study at any point. I will contact you through an agreed-upon method and provide you with an opportunity to review the context under which you are quoted.

Who can Participate in the Study

You may participate in this study if you are an adolescent girl, mother, nurse, NGO worker, who lives or has worked closely regarding health and education in the villages inside the Kibale National Park. You must be over the age of 15 or older and able to acknowledge your understanding of the guidelines provided in this informed consent document. All participants must be able to speak English or be comfortable with the use of a translator.

What you will be asked to do

Your involvement in this study will consist of one audio-recorded or written interview. You can terminate the interview at any time for any reason. You can choose to not answer any questions. The interview will take place in a location that is mutually convenient and as private as possible. The interview process, including the review of this consent form, should not exceed 1 hour.

Possible Risks and Discomforts

This study was written with your safety in mind. Although there are no guarantees, I can say that this study should not place you at any more risk than does your current lifestyle. All participants in this study will be referred to anonymously. Please consider the potential consequences of your responses, and answer the questions in a responsible manner.

Possible Benefits

The findings will contribute important new knowledge to an issue of growing concern to policymakers and academics alike that are attempting to address health care disparity for rural, poor and marginalized populations as well as those who are interested into addressing the issue of medical migration of health care workers. Your input in this

study will help produce an informed piece of research that emphasizes the importance of gathering input from the academics, policy makers and personnel most closely involved with the delivery of medical services.

Confidentiality & Anonymity

All information collected from the interview/questionnaire will be treated confidentially. I will be taking every measure possible to ensure the confidentiality of your contribution to my research by storing all interviews in a safe place at my places of residence in Uganda. Then they will be moved to the SMU IDS department's secured research filing cabinet when I return to Canada. All electronic data will be stored on a single encrypted and password-protected USB key. The notes and interviews will be stored in a safe and secure place in the SMU IDS department's secured research filing cabinet with private information removed, archived for a maximum of 5 years, at which time they will be disposed of in a manner ensuring privacy and confidentiality. They will not be shared with other researchers, beyond eventual published works. Given these measures, and my own personal intention of keeping all interview data completely confidential, the privacy of your personal information is assured

In addition to this, all notes and recordings will be destroyed after they are transcribed onto my password-protected laptop and backed up with encrypted flash drives. You will be assigned a number that will be used as a reference in the study to ensure the protection of any information provided. The University Policy on Scholarly Integrity requires that for published work, data must be held securely for 5 years, post-publication. After that period the data will be erased. Once I return to Canada from Uganda, personal data will not be taken outside of Canada. No secondary parties (i.e., survey companies or research assistants) will assist in data collection, management, storage, or analysis.

If requested, I will send you a copy of your interview transcript by either email or regular mail. Reviewing the transcript is optional. You can choose to have any portion of the transcript removed from the study should you decide to review it. I will wait two weeks to hear from you in regards to the removal of any portion of the transcript. I have estimated that this optional review will take 1 hour (the same time as the interview itself). If requested, I will send a progress report on the study within 6 months of the interview. I can also e-mail a copy of the finished study upon request.

Again, I must highlight that if you request to be quoted directly, the quote will not be attributed to you since you will be assigned an ID#. In instances where you request to be identifiable in the research, I will review the risks associated with the study and again highlight that you can withdraw from the study at any point.

Ouestions

Any questions about the research can be directed to me at (shannon.gavril@gmail.com). The contact information is available at the beginning of this document. Any time you wish to review the data from your interview you are encouraged to use any of the contact information provided in this document. I plan on finishing this research process by 1st August 2017 and have the data available within 6 months of my final submission. So long as the study has not yet been submitted, you can choose to withdraw any contributions you may have made. Any requests will be answered in a timely fashion.

Research Ethics Board

The Saint Mary's University Research Ethics Board has reviewed this research: 17-167. If you have any questions or concerns about ethical matters or would like to discuss your rights as a research participant, you may contact the Chair of the Research Ethics Board at ethics@smu.ca or (902) 420-5728.

Appendix C: Consent Form

Reducing Child Mortality in Uganda: Improving Basic Health Practices of Adolescent Girls Through Informal Education

Signature Page:

I have read the explanation about this study. I have been given the opportunity to discuss it and my questions have been answered to my satisfaction. I hereby consent to take part in this study. However, I realize that my participation is voluntary and that I am free to withdraw from the study at any time.

I agree to participate in	(Participant signature)
I agree to being aud	io-recorded.
I agree to my words	s being quoted anonymously
I request a copy of contact location	the interview and/or finished thesis be sent to my preferred
My prefe	erred contact location is:
I prefer to be identificated direction.	fied as a participant in this study, with any quotes from my ortly to me.
(Participant signature)	
Researcher signature	

Appendix D: Interview Guide (Women) Interview Questions

Section 1: Questions for household

Household ID: Village, Parish, County:

Interview Date: Interviewer Name:

Identification

Part 1: Household Demographics

People in household	Gender	Age	Occupation(s)	Level of	Education
☐ Grandparent (GP) ☐ Parent (P) ☐ Child (C) ☐ Grandchild (GC) ☐ Other Relative (OR) ☐ House- Helper (HH)	M/F	#	Please Specify:	□ None (N) □ Some Primary (SP) □ Completed Primary (CP) □ Some Secondary (SS)	□ Completed Secondary (CS) □ Vocational Training (V) □ College, University or Higher (CUH)

1.

- 2. Do you have a job that gives you income?
- a. Street vendor (food)
- b. Agricultural work harvesting/labour

- c. Working in the tea fields
- d. Handicrafts (baskets, mats, jewellery, etc.)

	e. f.	Salaried worker Shop keeper	g.	Other (specify)			
3.	What	were the reasons for not going and/ or continui	ng in	school?			
	a.	Unequal access (focus on					
		males)	f.	Didn't see the value of going			
		Early marriage	g.	Parents wanted them to say			
		Early pregnancy	1	and work at home			
	a.	Distance too far to travel to		Lack of infrastructure			
		school (unsafe to walk alone)		Other (specify)			
	e.	The costs were too high	j.	N/A			
4.	Who 1	ooks after your child/children when you leave	homeʻ	?			
	a.	Husband	d.	Older children			
	b.	Grandmother	e.	Friends and/or neighbours			
	c.	Other relatives (specify)	f.	Other (specify)			
Part 2	: Wate	r and Sanitation					
5.	What	water source do you use to collect water?					
	a.	Protected spring	e.	Rain collection			
	b.	Shallow water (not protected)	f.	Borehole			
	c.	Streams/ River	g.	Private/ Public Tap			
	d.	Local ponds/ Swamps	h.	Other (specify)			
6.	How f	ar/ long must you travel to collect water?					
		>5km					
	b.	<5km					
	c.	Over 10km					
7.	How o	often is the water treated in your household?					
	a.	Always	c.	Less than 5 days per week			
	b.	5 days per week or more	d.	Never			
8.	What	method does your household use to treat the wa	ater?				
	a.	Boiling	c.	Sun treatment			
	b.	Chemicals	d.	Other (specify)			
9.	Who maintains the water and sanitation facilities in your home?						

b.	You Husband Grandparents		Children Other (specify)
Part 3: Mate	rnal Health		
10. During	g your pregnancy did you receive prenatal care?		
	Yes No		
11. From	whom did you get advice from or treatment to he	lp v	vith your pregnancy?
b. c. d.	Hospital Health center Private clinic/doctor Pharmacy/drug seller Village health volunteer	f. g. h. i.	Relatives & friends
12. Did yo	ou have any of the following checks during your	preg	gnancy?
b. c.	Measure the growth and position of the baby Test for blood pressure Test for urine Blood tests for diseases (HIV, STIs, Malaria, iron levels etc.)		See if you were at high risk for birth complications (ex: having twins, if you previously had a caesarean section, age, etc.) Other (Specify)
13. When	you were pregnant how much food were you eat	ing?	
	More than usual? The same amount as usual?		Less than usual? Unsure
14. Where	e did you deliver your child/children?		
a. b.			Hospital Other (specify)
15. Was to	radition birth attendant or health specialist presen	ıt du	ring home deliveries?
	Yes No		

c.	N/A

1 /	D: 1	,	1 1	•	11	1: 4: 0
1h	1)1/1	บดบ ลท/ดเ	· wour hah	y experience any	hirth com	nlications/
10.	Diu	you all of	your out	y experience any	on the com	pincanons.

- a. Yes
- b. No

17.

P1: If YES, what were they?

- a. Nutrition (low birth weight)
- b. Disease (Malaria, HIV/AIDS, Hep A/B, Etc.)
- c. Had pregnancies too close together

- d. Obstructed or prolonged labour
- e. Other (specify)
- f. N/A

P2: What was the cause of the complications?

- a. Was doing strenuous tasks (collecting water/ crop planting/ gathering)
- b. No skilled birth attendant
- c. Other (Specify)
- 18. Were you given health advice on breastfeeding and nutrition during the para- and postnatal pregnancy times?
 - a. Yes, from a village health worker
 - b. Yes, from a family member

- c. Yes, from a doctor
- d. No
- 19. What were some the barriers you experienced in trying to receive proper care?
 - a. Unequal access (focus on males)
 - b. Distance too far to travel to clinic/ health facility
 - c. The costs were too high
 - d. Didn't see the value of going

- e. Husband preferred she did not go
- f. Cultural norms
- g. Lack of infrastructure
- h. Other (specify)
- i. None
- 20. Do/ did you feel like you have/had enough information on maternal health during pregnancy? Explain for both.
 - a. Yes
 - b. No

21. Have y	you ever thought about going to the clinic for mat	ern	al and child help?
	Yes No		
22. Have y	you tried using the maternal and child health servi	ice :	available?
	Yes No		
	of the following describes your thoughts about usealth help?	sing	g the clinic for maternal and
b. c.	I've never though about using services I'm undecided about using services I've decided I don't want to use them I've decided I do want to use them		
Part 4: Child	Health		
24. Did an	y tradition birth attendant or midwife come look	at y	our child after birth?
	Yes No		
25. Were	you able to breastfeed your children? And for how	v lo	ng? If NO, why not?
	Yes, for 1 to 3 months Yes, for 3 – 6 months		Yes, Over 6 month to 2 years No
26. What s	signs/ symptoms would you seek advice or treatm	ent	for your baby?
	Doesn't know Vomiting Fever Dehydration (dry mouth, thirsty, sunken eyes, decreased urine output)	f. g.	Diarrhea of prolonged duration Blood in stool Loss of appetite Weakness Other (Specify)
27. Are in	nmunization services available at the local clinic?		
b.	Yes, all Yes, but not all No		

- d. Doesn't know
- 28. Are you allowed to go anytime to receive the immunizations for your child?
 - a. Yes
 - b. No, you must schedule in advance
 - c. No, you must wait for specific dates they are given
- 29. Has your child suffered from any of the following diseases?
 - a. Diarrhea
 - b. Pneumonia
 - c. Measles
 - d. Malaria

- e. HIV/AIDS
- f. Malnutrition
- g. Other (specify)
- h. No
- 30. Have you tried any of the following interventions to improve yours or your child/children's health?
 - a. Oral rehydration
 - b. Breastfeeding
 - c. Immunization
 - d. Growth monitoring

- e. Getting child and maternal health care information
- f. Food supplements
- g. Family planning methods
- h. Other (specify)

Part 5: Family Planning

- 31. Are you and your partner using contraceptive methods to postpone or avoid getting pregnant?
 - a. Yes
 - b. No
- 32. If YES, What type of method are you using?
 - a. Condom
 - b. IUD
 - c. Pill
 - d. Injections
 - e. Tubal ligation

- f. Vasectomy
- g. Abstinence
- h. Other (Specify)
- i. N/A

- 33. If NO, what is the reason?
 - a. Costs
 - b. Lack information

- c. Lack of transport to get medication/ see a doctor
- d. Cultural norms

e. No access

f. Other (specify)

Part 6: Health Promotion and Education

Structural and Organizational Level

- 34. How close is the nearest primary school?
 - a. 5-10mins walk
 - b. 10-30mins walk
 - c. > 30mins walk (specify)
- 35. Is there any form of health education taught in schools?
 - a. Yes
 - b. No
 - c. Doesn't know
- 36. If YES, what type of health education is taught?
 - a. First Aid
 - b. Reproductive health
 - c. Child and maternal health
 - d. Disease transmission
 - e. Water and sanitation

- f. Nutrition
- g. Other (specify)
- h. All of the above
- i. Doesn't know
- j. N/A

Part 6: Health Promotion and Education

Community and Interpersonal

- 37. What informal education services are available in or near your village?
 - a. None
 - b. NGOs
 - c. Health extension workers
 - d. Teachings from elders

- e. Information from clinics
- f. Mobile health clinic
- g. Other (specify)
- h. Doesn't know
- 38. Do most adolescent girls go to school in your village?
 - a. Yes
 - b. No
 - c. Doesn't know
- 39. Are the informal education services available for adolescent girls?
 - a. Yes
 - b. No

- c Doesn't know
- d. N/A

40. Are girls in the village c	losely monitored for their health	and wellbeing?
a. Yesb. Noc. Doesn't know		
41. What health support is g	given outside of schools for adole	scent girls?
a. Educationb. Employmentc. Eatingd. Activity	f g	DrugsSexualitySafetyDepression
42. Where do adolescent gir the village?	ls get their information and can g	go for advice on health matters in
a. Family b. Elders	Ċ	Village health leadersNearby clinic or hospitalDoesn't know
43. Are adolescent girls trea	ted with respect and easily able t	o get food and aid when needed?
a. Yes b. No		
44. If NO, why?		
a. Cultural normsb. Preference given		e. Other (specify) l. N/A
45. Do you see many young	girls pregnant and/or with childr	ren?
a. Yesb. No		
46. Where do adolescent gir	els go for advice on reproductive	health?
a. Hospitalb. Health centerc. Private clinic/docd. Pharmacy/drug se. Village health vo	ctor h eller i	g. Traditional birth attendant Relatives & friends
47. Is using contraceptives e	explained and supported among for	emales?
a. Yes		

- b. No
- c. Doesn't know
- 48. Does the school system support girls attending schools? (ex: separate bathrooms)
 - a. Yes
 - b. No

Part 7: Thoughts on Informal Health Education

- 49. Do you feel you have any say in community health decisions? If NO, explain why?
 - a. Yes
 - b. Decisions are made by the national government
 - c. Decisions are made by the district level governing body

- d. Decisions are made by local NGOs and international organizations
- e. Only the men in the village decide
- f. Doesn't know
- 50. Do you feel well taken care of and welcome when you go to the clinic?
 - a. Yes
 - b. No, I am ignored or treated poorly

- c. No, there isn't enough resources to help me
- d. Other (specify)
- 51. How often do trained health workers visit the community?
 - a. Once a week
 - b. Once every 2 weeks
 - c. Once a month

- d. Once every 3 months
- e. Never
- f. Doesn't know
- 52. What treatment and health advice to they offer?
 - a. First Aid
 - b. Reproductive health
 - c. Child and maternal health
 - d. Disease transmission
 - e. Water and sanitation
 - f. Nutrition
 - g. Immunizations
 - h. Other (specify)
 - i. All of the above
 - j. N/A

53.	Do health	workers	provide	health	education	by vi	siting	household	s and	school	s or l	Эy
	attending	communi	ity meeti	ings?								

- a. Visiting households
- b. Visiting schools
- c. Attending community meetings
- d. All of the above
- e. Doesn't know
- f. N/A
- 54. What health information do you feel you need, but lack? (Explain)
- 55. Would you attend health education workshops in the village if they were available? If NO, explain why?
 - a. Yes
 - b. No

Appendix E: Group Discussion Guide (Adolescent Girls)

Section 2: Questions for Group Discussion

Number of participants:	
Village, Parish, County:	

Group Discussion Date: Facilitator's Name:

Part 1: Community health

- 1. What do you feel are the main barriers to receiving proper pre-, para, and post-natal health care in the village?
- 2. What have been the community-based interventions in your village?
- 3. What type of research has been done through these interventions? (Child and maternal health, Sexual and reproductive health, Communicable diseases (list), Non communicable diseases, Mental health, etc.)
 - Has there been follow-up from these interventions since they were first presented/implemented? What has the follow-up consisted of?
- 4. How have you noticed a difference in your community with these interventions?
- 5. Has a water safety plan and/ or guidelines for drinking water-water quality ever been implemented in the village?
 - If YES- how? And have you seen improvements?
 - If NO- would you be interested in being informed and having a plan to follow?
- 6. Have community health workers, skilled birth attendants and/or nurses expressed the importance of pre-, para-, and postnatal care?
- 7. Do you feel there is equitable distribution of health services and nutrition in the community?
- 8. What maternal and child health services are available for you?
- 9. What do you feel are the main causes leading to maternal mortality?
- 10. Are there high levels of under-5 child mortality seen in the community?
 - What do you feel are the main causes of under-five child mortality? (Nutrition, malaria, communicable diseases, non-communicable diseases, etc.)

- Has there been any preventative measures taken as a community to prevent or reduce under-five child mortality?
- 11. Do you find children undernourished? (look thin, lack energy, etc.)
- 12. Where do you mostly go to seek advice about health and treatment for you and your family?

Part 2: Support for Adolescent Girls

- 1. Are girls in the village closely monitored for health and wellbeing?
 - a. How are they monitored?
 - b. Why aren't they if NO?
- 2. Has any one in the village been specifically trained to help adolescent girls who are not able to go to school?
- 3. What forms of health education do girls receive in school?
- 4. What forms of health education do girls receive if they are not in school?
- 5. Are many girls getting pregnant during their adolescents?
- 6. How are adolescent girls proactive about their health and their child's health?
- 7. How do adolescent girls feel in the village when they become pregnant?
- 8. Do you feel adolescent girls are aware of the importance of their health and their child's?
- 9. Do adolescent girls ask for help with their pregnancies? What information do they ask about? Do you find they take advice easily?
- 10. Are men more favoured in the community? Are they the primary decision makers?

Part 3: Opportunities for Health Instruction in the Village

- 11. Do you feel there is enough health support for your community at the local, district and national level?
 - a. If YES, what health progress/commitments have they made?
 - b. If NO, what do you feel they have lacked in providing?
- 12. Is there a local health committee in the village?
- 13. Where do you receive most of your health information?

- 14. Are there any health activities carried out in the village? If Yes, what do they consist of?
- 15. Do you find community education and activities helpful?
- 16. How has the Kibale Mobile Health Clinic helped better access to medication and health education?
 - a. Have you seen improvements in your household's health with the Kibale mobile clinic?
 - b. Are you able to gain greater access to immunizations and other medications for you and your family?
 - c. How often does the clinic come around your village?
 - d. What does the education consist of that comes along with the medication/care you receive?
- 17. How would you feel about a village education health program in your village?
 - a. Would you attend open discussions about health?
 - b. Do you think this would be helpful towards improving overall community health?
 - c. Do you think it would be helpful in reducing child and maternal mortality?
 - d. Would you be willing to contribute to making an informal village health education program? If NO why not?

Appendix F: Interview Guide (Health Professionals)

Section 3: Questions for Health Professional

Village, Ward, Sub County:

Health Professional ID:

Interview Date: Facilitator's Name:

Part 1: Maternal and Child health

- 1. Do you find women often delay in receiving health care?
 - a. If YES, what do you think are the barriers that cause a delay in them coming to the clinic?
- 2. Are there any traditional birth attendants in the village that you are in contact with and discuss child and maternal health?
- 3. What are the cultural or traditional practices in the village?
- 4. Are there any emergency obstetric care available for the communities?
- 5. Do you tell patients about the importance of pre-, para-, and postnatal care?
- 6. Do have antenatal services available at the clinic? Are you able to deliver babies?
 - a. If NO, what is the nearest clinic that can provide these services?
 - b. IF YES, what type of birth complications are often seen?
- 7. What are the main sicknesses in relation to child and maternal health do mothers come to the clinic for?
- 8. Do you find mother and children often look malnourished?
- 9. What are the main causes of maternal mortality in the area?
- 10. What are the primary causes of under-five child mortality?
- 11. Do you provide any form of education or information for patients at the clinic?
 - a. What sort of education/information do you provide?
 - b. Are patients open to receiving education/information?
 - c. Have you seen patients use your health recommendations and seen it benefit them?
- 12. Do you provide routine vaccinations?
 - a. Do many mother and children come in for these vaccinations?

- 13. How do villagers see the clinic? Are they open to coming in for medical help and advice?
- 14. Do you feel you supported enough by the government for supplies and resources for the clinic?
 - a. If No, why?

Part 2: Adolescent Girls Health and Education

- 15. Do you see many adolescent pregnancies in the clinic?
- 16. Do adolescent girls come to the clinic to ask for help/ advice about childcare, family planning and reproductive health?
 - a. If No, why do you think they don't come?
 - b. If Yes, what sort of information do they ask about?
- 17. Do you find women are open to asking for help and disclosing health issues or do they primarily rely on elders and/or traditional healers in the community?
- 18. Do you provide information about safe sex practices?
- 19. How often are adolescent girls coming into the clinic for pregnancy or reproductive health?

Part 3: Formal Health Education Services

- 20. How are the facilities in schools for water and sanitation?
 - a. Do they provide: safe water facilities? Safe sanitation facilities (private toilets with water and soap)? Menstruation pads?
- 21. Are there health promotion programs in schools that include health education?
 - a. Skills-based education
 - b. Puberty education
 - c. Education focusing on the development of knowledge, attitudes, values, and life skills needed to make and act on positive decisions concerning health?
- 22. What do school nutrition programs consist of?

Part 4: Informal Health Education and Community-based Initiatives

- 23. Are there many adolescent friendly health services that communities have access to?
 - a. If YES, what do they consist of?
 - b. If NO, Why do you think there is none? Do you think adolescent girls could benefit from this?

- 24. Are there any NGOs or international organizations working in the area to help with community health?
 - a. If YES, who are they? Do you find it is helping? Have you seen health improvements in the community?
 - b. If No, Why do you think interventions haven't come to these communities?
- 25. How do you think a village health education plan would be accepted in the villages?
 - a. Do you think adolescent girls would?
 - b. Do you think this would be helpful towards improving overall community health?
 - c. Do you think it would be helpful in reducing child and maternal mortality?
 - d. Would you be willing to contribute to making an informal village health education program? If NO why not?

Appendix G: Interview Guide (NGOs)

Section 3: Questions for NGOs

Village, Parish, County:

NGO name:

Interview Date: Facilitator's Name:

Part 1: General Questions

- 1. How long have you been working in the area?
- 2. What has your primary work consisted of?
- 3. What improvements have you seen in the villages?

Part 2: Maternal and Child Health

- 4. What is being done in the community to better maternal and child health?
- 5. Do you see a high level of under-five child mortality?
- 6. What do you think are the primary causes of under-five child mortality in the area?
- 7. What information do you think villagers are still lacking towards basic health practices to reduce the transmission of diseases?
- 8. Have women been responsive to information about improved health practices?
- 9. Have you seen a change in attitude towards hygiene and sanitation?
- 10. Do villagers often come to you seeking help?

Part 3: Adolescent Girls Health and Education

- 11. Do you find there is a high level of adolescent pregnancies in the villages?
- 12. What programs have been put in place to provide adolescent girls with adequate information on basic health, hygiene and sanitation childcare and reproductive health?
- 13. Do you feel adolescent girls have enough support in their communities?
 - a. If YES, what type of support do they receive?
 - b. If NO, why not? Do you feel they are neglected in the villages?

- 14. Are there any cultural and traditional practices in the community that inhibit women from receiving proper care and equality?
- 15. How do you think a village health education plan would be accepted in the villages?
 - a. Has a plan ever tried to be implemented?
 - b. Do you think adolescent girls would?
 - c. Do you think this would be helpful towards improving overall community health?
 - d. Do you think it would be helpful in reducing child and maternal mortality?
 - e. Would you be willing to contribute to making an informal village health education program? If NO why not?