

Experiences and coping mechanisms of adolescent mothers and  
intervention programmes to reduce adolescent pregnancy in Lower  
Manya Krobo Municipality, Ghana.

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## **Abstract**

### *Background*

Adolescent pregnancy is a global health and social challenge and is most prevalent in low- and middle-income countries. The high prevalence of adolescent pregnancy in these countries is strongly associated with poverty, child marriage and limited access to and knowledge of reproductive health services and contraceptives. The risk of maternal mortality, exposure to sexually transmitted diseases, school dropout and limited employment opportunities are some of the stressors associated with adolescent pregnancy.

### *Objectives*

The primary objectives of this study is to explore the individual experiences and coping strategies of adolescent mothers as well as measures implemented to reduce the risk of pregnancy among adolescent girls in the Lower Manya Krobo Municipality of Ghana. This area has persistently witnessed a high prevalence of adolescent pregnancy over the last couple of decades.

### *Theoretical framework*

The study was guided by the theory of salutogenesis which focuses on factors that move people towards positive health and well-being and their Sense of Coherence (SOC) that strengthens their ability to identify and use resources.

### *Methodology*

The study adopted a qualitative methodological approach with a phenomenological strategy. The sampling of research participants was done using a combination of purposive and snowball sampling methods. A total of 26 participants were recruited for the study. This include 14 primary participants (adolescent mothers) and 12 key informants. Data collection was done using in-depth interviews and thematic network analysis was used to analyse the research data.

### *Findings*

The research findings identified several risk factors and stressors that contributed to the prevalence of adolescent pregnancy and adversely affected the well-being of adolescent mothers in the Lower Manya Krobo Municipality. These included poverty, parental neglect, sexual abuse, lack of role models, cultural norms, single parenting, pregnancy and delivery-related stressors, abortion-related stressors, low educational attainment and emotional stressors. The availability of hospitals and community health centres, the national health insurance scheme, activities of NGOs, social network, a friendly school environment and the general economic environment were identified as useful resources that adolescent mothers

relied on to enable them to cope with the stressors of teenage motherhood. School-based and community reproductive health education programmes that mostly focused on abstinence, sex and reproductive health education and contraceptive use were also identified as some of the interventions targeted at reducing adolescent pregnancy in this area. To improve on the current intervention programmes, a number of recommendations were made with reference to the research findings. These include a wider stakeholder approach to programme design and implementation as well as expending resources to addressing the underlying socioeconomic factors that are contributing to the high prevalence of adolescent pregnancy in this area.

### *Conclusion*

The study concluded that the prevalence of adolescent pregnancy and its associated consequences in the Lower Manya Krobo Municipality is a combination of several social, cultural and economic factors. These factors are also a reflection of the uneven distribution of wealth within the society as most pregnant adolescent girls are from very poor backgrounds. Applying the resource-based approach as advocated by the salutogenic theory, it emerged that adolescent mothers were able to cope with their stressful situation and improve their well-being. Those who understood their life situation and were willing to invest their time and energy were able to identify and use resources at their disposal.

**Keywords:** *Adolescent pregnancy, coping mechanisms, Ghana, interventions to reduce adolescent pregnancy, Lower Manya Krobo Municipality, salutogenesis, sense of coherence, stressors, teenage motherhood.*

## **List of acronyms and abbreviations**

AFPEO- Adolescent Friendly Peer Educators Organization  
ANC- Antenatal Care  
CAC- Comprehensive Abortion Care  
CHPS- Community-based Health Planning Services  
CSE- Comprehensive Sexuality Education  
FGD- Focus Group Discussion  
GES- Ghana Education Service  
GRR- Generalized Resistant Resources  
HIV/AIDS- Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome  
JHS- Junior High School  
LEAP- Livelihood Empowerment Against Poverty  
LMICs- Low- and Middle-Income Countries  
LMKM- Lower Manya Krobo Municipality  
NGOs- Non-governmental Organizations  
NHIS- National Health Insurance Scheme  
NSD- Norwegian Center for Research Data  
RCT- Randomized Control Trial  
SDGs- Sustainable Development Goals  
SOC- Sense of Coherence  
SHS- Senior High School  
SRR- Specific Resistant Resources  
STI- Sexually Transmitted Infections  
TBA- Traditional Birth Attendant  
UNFPA- United Nations Population Fund  
UNHCR- United Nations High Commissioner for Refugees  
UNICEF- United Nations International Children's Emergency Fund  
WHO- World Health Organization  
YOWE- Youth and Women Empowerment



## **Chapter 1. Introduction**

### **1.1 Background**

Adolescent pregnancy is a major social, health and development issue for most governments in low- and middle-income countries. It is estimated that 16 million girls between 15-19 years and 2 million girls under 15 years get pregnant every year with a ratio of 1 in 5 girls giving birth by age 18 globally (Neal et al., 2012; UNFPA, 2015). Adolescent pregnancy according to the WHO (2004) describes pregnancy among young women aged 10-19 years. The prevalence of adolescent pregnancy vary across different regions of the world yet the highest prevalence is found in low- and middle-income countries (LMICs) (Cook & Cameron, 2017). Several studies have associated adolescent pregnancy with a high rate of infant and maternal mortality and the risk of exposure to sexually transmitted infections (STI) including HIV among adolescents as well as its negative effects on the social and economic development of low- and middle-income countries (Hindin & Fatusi, 2009; Kassa, Arowojolu, Odukogbe, & Yalew, 2018; Morris & Rushwan, 2015). School dropout, lack of employment opportunities and lack of access to reproductive health services among adolescents are some of the social challenges associated with adolescent pregnancy (UNICEF, 2012; Wodon et al., 2017).

The risk factors associated with adolescent pregnancy are shaped by the socioeconomic, political and cultural characteristics of different regions and countries (Holness, 2015; G. C. Patton et al., 2016). Issues of child marriage, poverty and low reproductive health education and contraceptive use have been largely associated with the high rate of adolescent pregnancy in LMICs. Low prevalence of adolescent pregnancy in most high-income countries are attributed to high level of contraceptive use, comprehensive reproductive sex education and the culture of openness in discussing sexual matters at home and school. Unplanned pregnancy among adolescents in high-income countries is mostly associated with alcohol and drug use and among marginalized groups with low socioeconomic status. (Cook & Cameron, 2017).

Reproductive health outcomes within the general population is largely determined by the socioeconomic level of different countries. The absence of employment opportunities and social support systems in most LMICs is seen as a factor that drive young women to engage in sexual activities to survive (Fatusi & Hindin, 2010). Reproductive health services such as family planning and maternal health services are often inaccessible to adolescent girls in most LMICs due either to lack of money or fear of being stigmatized for engaging in premarital sex (Williamson, Parkes, Wight, Petticrew, & Hart, 2009).

To address the issue of adolescent pregnancy, different governments and international organizations are promoting comprehensive sex education for adolescents on issues relating to their sexual and reproductive health (Weed & Ericksen, 2019). This has been internationally recognised as a way of reducing maternal and infant mortality and morbidity; empowering women and addressing issues of gender inequality; reducing poverty; and address sexually transmitted diseases including HIV/AIDS (UNFPA, 2016). The human rights-based approach has also been adopted in an effort to promoting adolescent reproductive health globally. The Programme of Action at the 1994 International Conference on Population and Development emphasized the need for promoting reproductive health and rights of adolescents. Based on this approach, individuals and couples have the right “to be informed, have access to safe, effective, affordable and acceptable methods of family planning as well as the right to access appropriate healthcare services to enable women to have safe pregnancy and childbirth”. (UNFPA, 2004, p. 45). One of the targets for the Sustainable Development Goal (SDG) 3 is to “ensure universal access to sexual and reproductive health-care services, including for family planning, information and education and the integration of reproductive health into national strategies and programmes” (United Nations, 2015, p. 18). The *convention on the rights of the child* also encourages all signatory countries to take appropriate measures to abolish all harmful traditional practices that affect the health of children (United Nations, 1989).

## **1.2 Problem statement**

Little research has been done in the Lower Manya Krobo Municipality (LMKM) to explore the prevalence of adolescent childbearing, the personal experiences of teenage mothers and how they cope with the challenges of teenage motherhood. This area has consistently recorded high incidences of adolescent pregnancy over the last six years (Ghanaweb, 2014). This is considered one of the factors contributing to early school dropout among pregnant adolescents. Teenage mothers in this area are considered vulnerable as they are mostly from deprived homes and lack the necessary health care and welfare support systems. They are therefore left to fend for themselves and their babies. Most of the girls are also below the legal working age (18 years) with low education and no vocational skills and hence are unable to secure employment. Also, the high prevalence of adolescent pregnancy in the municipality over the years could be an indication of the ineffectiveness of intervention programmes targeted at reducing adolescent pregnancy.

### **1.3 Purpose of research**

The purpose of this research is to explore how adolescent mothers are coping with the challenges of teenage motherhood. The study also seeks to find out the resources they draw on to enable them cope with the stressors of teenage pregnancy and childbearing. It also appears that little progress has been made in addressing adolescent pregnancy as it continues to persist. The study would therefore seek to examine the current interventions in order to make recommendations to improve future intervention programmes that could help reduce adolescent pregnancy in the municipality. From a health promotion perspective, the research would be seeking to provide recommendations on how to improve the overall well-being of adolescent mothers.

### **1.4 Significance of the study**

The findings of this research could be significant in influencing national policies and intervention programmes aimed at promoting adolescent reproductive health. The findings will draw attention of policy makers to the rights of adolescents to accurate and reliable information about their reproductive health and their right to reproductive health services including the creation of a supportive social and economic environment. The findings would also contribute to the literature on the experiences of teenage motherhood. The study would also add to the field of health promotion by highlighting health promoting activities that could improve the well-being of adolescent girls and mothers.

### *Organization of thesis*

The thesis starts by presenting a background to the topic of adolescent pregnancy, the problem statement, purpose of the study and its significance. The rest of the thesis proceeds by reviewing the literature on adolescent pregnancy. This is followed by the theoretical foundation that guides the discussion and interpretation of the research findings. The next chapter presents the methodological approach to the study and the methods used for sampling, data collection and analysis as well as actions taken to ensure the quality of the research and see to it that ethical standards are met. The next chapter presents the research findings. This is followed by a discussion of the research findings. The final chapter presents the conclusions drawn from the study.

## **Chapter 2. Literature review**

### **2.1 Introduction**

Global estimates of the percentage of women across different regions aged 20-24 years who had given birth before the age of 18 from 1995 to 2011 indicates a high rate of adolescent pregnancy in Sub-Saharan Africa. West and Central Africa is estimated to have a rate of 34% and Eastern and Southern Africa at 29% (UNFPA, 2013). Empirical studies on adolescent/teenage pregnancy have largely focused on the risk factors as well as the short- and long-term health, social and economic consequences of adolescent pregnancy. Several studies have also been conducted to evaluate the effectiveness of different intervention programmes aimed at promoting positive adolescent sexual and reproductive health and reducing adolescent pregnancy. The literature review will cover risk factors and challenges associated with adolescent pregnancy; potential resources and coping mechanisms; and the broader intervention programmes that are aimed at reducing adolescent pregnancy.

### **2.2 Risk factors associated with adolescent pregnancy**

The risk factors associated with adolescent pregnancy include cultural and social norms, the level of economic development and the general level of education within the society, family background, low use of contraception and a general lack of communication and sex education (Kanwetuu, Mokulogo, & Azumah, 2018; Okereke, 2010; Pradhan, Wynter, & Fisher, 2015; Sharma, Verma, Khatri, & Kannan, 2002; Yakubu & Salisu, 2018).

Most LMICs still practice child marriage, that is, marriage before the age of 18 which is one of the major contributing factors associated with adolescent childbearing in these regions (Nguyen & Wodon, 2015). From the year 2000 to 2010, an estimated 58 million girls in LMICs had been married before the age of 18 with the rate of child marriage higher in rural areas compared to urban areas (Hervish & Feldman-Jacobs, 2011). Research by Sharma et al. (2002) in Nepal suggest that the average age of marriage among adolescents was 16.7 years. Their study revealed that teen girls were married off to older men in order to receive money as bride price to avoid the extra cost of feeding and education of the girl child. Similar findings were made by Nour (2006), who identified financial gains and reduced burden of girl child care as a strong motivating factor for child marriage in Africa. A cross-sectional observational study in India by Raj, Saggurti, Balaiah, and Silverman (2009) also found that child marriage is significantly correlated with low contraceptive use before first birth, high fertility, and repeated child birth in less than 24 months, multiple unwanted pregnancies and abortions.

Lack of access to and low use of contraceptives among adolescents especially in LMICs has also been identified as a leading determinate of teen pregnancy. This is largely attributed to the feeling of guilt among adolescents for being sexually active and the embarrassment of acquiring contraceptives from a health facility. Many sexually active adolescents also lack the cognitive and behavioural skills to take logical decisions regarding their sexuality and to understand the consequences of engaging in sexual activities (Chandra-Mouli, McCarragher, Phillips, Williamson, & Hainsworth, 2014; Miller & Moore, 1990).

Lack of communication and sex education has also been identified as a cause of the high level of adolescent pregnancy in LMICs. Research conducted by Kanwetuu et al. (2018) on information sources and their effect on adolescent sexual behaviour in Ghana, concluded that most adolescents often get sex information from their peers and the media. This information often influence the age at which they initiate sex and their use of contraceptive. Given the nature of the cultural setting in the Ghanaian society, adults (parents and teachers) hardly discuss issues of sex or reproductive health with their children or students.

### **2.3 Challenges and stressors associated with adolescent pregnancy**

There have been extensive research on the health, social and economic consequences associated with adolescent pregnancy in LMICs. In most LMICs, complications from pregnancy and childbirth are a leading cause of death among adolescent girls (WHO, 2014). The health consequences associated with adolescent pregnancy include mental health problems, high risk of low birth weight, preterm birth, eclampsia, maternal and perinatal mortality and anaemia (Gibbs, Wendt, Peters, & Hogue, 2012; Grønvik & Sandøy, 2018; Zabin & Kiragu, 1998).

A study by Corcoran (2016) discusses mental health risk amongst adolescent mothers. The study found that mental disorders could be a result of the social risk factors that contribute to adolescent pregnancy such as drug and alcohol use or it could be a result of stress of meeting the demands of nurturing a child. Depression among teen mothers could also act as a risk factor for rapid repeated childbearing. Hodgkinson, Colantuoni, Roberts, Berg-Cross, and Belcher (2010) identified depression as a pervasive mental health disorder among teenage mothers. They identified social isolation, childhood adversity and negative family history as some of the leading causes of depression among teen mothers which may cause them to have suicidal tendencies.

Other studies have also identified adverse birth outcomes related to adolescent pregnancy. Webb, Marshall, and Abel (2011) conducted a longitudinal study in the United

Kingdom using data from the office of statistic on teenagers in England and Wales in the 1970s, 80s and 90s and found that teenage mothers are at a risk of death from suicide or cervical cancer. Ganchimeg et al. (2014), using a multi country dataset collected in 29 countries found high risk of eclampsia, puerperal endometriosis, systemic infections and adverse perinatal outcomes among adolescent mothers. They also found adolescent pregnancy to be independently associated with increased risk of low birth weight, preterm delivery and severe neonatal death. Studies in four countries across Sub-Saharan Africa conducted by Mombongoma et al. (2016), using randomized control trial (RCT) in assessing alternative drugs for intermittent preventive treatment of malaria in pregnancy found that younger mothers were more likely to deliver prematurely or deliver a low birth weight infant compared to older mothers. Their other finding shows that young maternal age had a stronger association with adverse pregnancy outcomes than other risk factors such as malaria and infections. Kawakita et al. (2016, p. 132) study on the adverse effects of adolescent pregnancy, found that pregnant adolescents were mostly at risk of “maternal anaemia, preterm delivery at less than 37 weeks of gestation, postpartum haemorrhage and preeclampsia”.

Induced abortion was also found to be prevalent amongst adolescents living with their parents in Burkina Faso and Ghana due to fear of stigmatization, lack of knowledge of legal/safe abortion facilities or lack of financial resources (Ilboudo, Somda, & Sundby, 2014; Payne et al., 2013). Unsafe abortion is regarded as a leading cause of maternal mortality in sub-Saharan African (Ilboudo et al., 2014; Sedgh, 2010).

Research shows that adolescent mothers are more likely to have low educational attainment due to early school dropout, repeated child birth, work in low-income employment, are more likely to be single parents and their female children are more likely to become teen mothers themselves (Cook & Cameron, 2017; Klein, Barratt, Blythe, & Diaz, 2005; Mollborn & Jacobs, 2012). Research findings by Simkins (1984), indicate that adolescent pregnancy mostly disrupt both formal and vocational education of teenagers which makes them less skilled, eventually leading them to low-income jobs. Lloyd and Mensch (2008) found that there is a high risk of adolescents leaving school as a result of childbirth in Sub-Saharan Africa. Studies by Gigante et al. (2019), in Brazil also found that adolescent mothers had less education and lower income compared to mothers who had their first child at an older age. These social and economic consequences of teen motherhood is seen to be strongly associated with the family background of teen parents as pregnant teenage girls from poor economic backgrounds often lack financial and social support during and after pregnancy (Geronimus & Korenman, 1992).

## **2.4 Coping mechanism and support systems**

Adolescent mothers experience social, economic and emotional challenges throughout the period of pregnancy and after delivery. Coping with these challenges require adolescent mothers to identify and use resources that are available to them. These resources could be in the form of emotional, social or physical resource support from family members and friends. Studies by Mann, Abercrombie, DeJoseph, Norbeck, and Smith (1999) on African-American women found that emotional support from family members especially mothers of pregnant adolescents and other women was considered a strength and an asset. Other forms of coping mechanism is the sense of pride in being a mother. A study by Kaye (2008) in Uganda found that adolescent mothers perceive motherhood as a positive experience and find pride and joy in having a child. The presence of a child is also a motivating factor for adolescent mothers to try to thrive as they make efforts to find what they can do to support their child's welfare (Pogoy, Verzosa, Coming, & Agustino, 2014).

## **2.5 Adolescent reproductive health intervention programmes**

Intervention programmes designed to improve adolescent reproductive health are mostly targeted at creating a supportive environment for young people, improving the reproductive health knowledge, attitudes, skills, and behaviour of adolescents and increasing utilization of health and contraceptive services (Bennett & Assefi, 2005; Farber, 2009). These intervention programmes mostly take the form of sexual reproductive education programmes and community-based programmes (Speizer, Magnani, & Colvin, 2003).

A study by Card (1999) identified several intervention programmes to address the problem of adolescent pregnancy. The findings showed that for programmes to be able to effectively address adolescent pregnancy, there is the need for a national consensus on the nature of the problem and programmes should be sensitive to the larger context and culture in which adolescents live to reflect the needs and perspective of adolescents on sexual and reproductive health. A review of school-based teenage pregnancy programmes found that the effects of abstinence only programmes on adolescent sexual behaviour is relatively minimal and mostly short term (Bennett & Assefi, 2005). Programmes that include knowledge of contraceptive use had a significant influence on adolescent sexual activity as they noted an increase in the number of adolescents using contraception (Bennett & Assefi, 2005).

Comprehensive Sexuality Education (CSE) is one of the policy agendas adopted at the International Conference on Population and Development in 1994 held in Cairo, Egypt. One of the goals agreed on during this conference was the provision of universal access to a full

range of reproductive health services including family planning (UNFPA, 2004). The CSE encourages governments to provide sex education to promote the reproductive health and well-being of adolescents both in schools and at the community level (Haberland & Rogow, 2015). These programmes are mainly focused on abstinence as the healthier way of preventing pregnancy and STIs as well as providing information about the consequences of early pregnancy and STIs including HIV.

One useful strategy to influencing the sexual behaviour of adolescents is mass media programme which has the potential of reaching a larger audiences and its ability for creative content by combining sex educational programmes with entertainment to attract young audience (Speizer et al., 2003). A review of research papers by Kirby (2001), that evaluated the effectiveness of sex education programmes indicated that sex and HIV education programs delayed the onset of sex, reduced the number of sexual partners and the frequency of sex and an increased in the use of contraceptives among adolescents. A study by Aninanya et al. (2015) in a community in northern Ghana to assess the impact of a social learning intervention, incorporating environment, motivation, education, and self-efficacy to change behaviour on usage of sexual and reproductive health services among young people found that some components of the intervention resulted in increased contraceptive use which improved their reproductive health.

This form of sex education for young people are not very common in LMICs especially in rural areas. This is largely due to the fact that topics of sex are less discussed at homes and in schools with adolescents as a result of cultural and religious beliefs. A study by Bankole, Biddlecom, Guiella, Singh, and Zulu (2007) highlights the opinions of religious leaders on the issue of sex education for young people as they believe teaching adolescents about sex and reproductive health will encourage them to engage in premarital sexual activities. Although sex education programmes could be effective strategies to promoting positive adolescent reproductive health, they do not address the fundamental factors such as poverty and socio-cultural factors that expose adolescents to risky sexual behaviour (Bearinger, Sieving, Ferguson, & Sharma, 2007).

Several studies have also been conducted on the effectiveness of community-based reproductive health intervention programmes aimed at improving adolescent reproductive health and reducing adolescent pregnancy (Brieger, Delano, Lane, Oladepo, & Oyediran, 2001; Greene, Smith, & Peters, 1995; Rose-Clarke, Bentley, Marston, & Prost, 2019). These programmes are mostly undertaken outside the school environment and are mostly designed



within the context and need of the specific community. They mostly take the form of youth development programmes and peer promotion programmes (Speizer et al., 2003).

The youth development programmes are designed to address the general well-being of adolescents. They focus less on sex education and more on promoting the educational and career aspirations of adolescents, development of their psychosocial needs and creating a safe environment for young people with the sole purpose of promoting a healthy life style for adolescents and a reason not to get pregnant at an early age (Kirby & Coyle, 1997). One example of a youth development programme is the “*Teen Outreach Programme*” that encouraged young people to do volunteer work within their community which is linked to classroom discussion on issues of human growth and development to making life decisions (Allen, Philliber, & Hoggson, 1990, p. 506). Another example is “*I have a future*” which sought to develop a community-based life option enhancement program that promote a significant reduction in the incidence of high risk health behaviour among adolescents (Greene et al., 1995, p. 270).

The use of peer facilitated community-based interventions have also been found to be effective to promote positive adolescent reproductive health and reducing early pregnancy (Alcock et al., 2009; Sriranganathan et al., 2012). Studies show that young people mostly seek information and advice from their peers, which is considered a relatively significant form of peer social network in the positive development of young people and also a less costly form of peer facilitated intervention programmes compared to professional inputs (Milburn, 1995; Rose-Clarke et al., 2019). An evaluation of a peer education programme in Ghana by Wolf, Bond, and Tawfik (2000), found that reproductive health programme messages mostly move through social networks and most young people are more comfortable going to their peers for information on reproductive health, contraceptive use and family planning than to adults. Speizer, Tambashe, and Tegang (2001, p. 340) also did a study to evaluate the impact of a peer-based adolescent reproductive health intervention program titled “*Entre Nous Jeunes*” in Cameroon. One of the goals of the programme was to test the effectiveness of peer education strategy to increase contraceptive prevalence and reduce the prevalence of STIs and HIV and unintended pregnancy among adolescents. The findings indicate a positive impact on the sexual and reproductive health knowledge and attitudes of young people who had contact with peer educators.

Other intervention programmes targeted at reducing early pregnancy among adolescents are programmes designed to improve access to contraceptives. These include community family planning clinics and school-based clinics that offer health services to

adolescents as well as providing both access to contraceptives and information about the use of contraceptives (Kirby, 2001). However the use of medical contraceptives such as pills, injectable and implants have been low especially in LMICs mainly due to insufficient knowledge about modern contraceptives (Bankole et al., 2007). There is also limited access to health services and some health professionals discourage teenagers from using medical contraceptives with the notion that it might cause infertility in their adult life (Bankole et al., 2007). Adolescent girls in many LMICs may also be unwilling to seek medical contraceptives for fear of being stigmatised due to cultural norms that largely prohibit or discourage adolescents from engaging in premarital sexual activities (Aninanya et al., 2015; Bearinger et al., 2007; Chandra-Mouli et al., 2014).

A review of the literature on adolescent pregnancy shows that little research has been done to explore the experiences and coping mechanisms of adolescent mothers in the sub-Saharan African region, particularly Ghana. This study will adopt a health promotion approach to explore the lived experiences and coping mechanisms of adolescent mothers as well as to make recommendations on improving current interventions targeted at reducing adolescent pregnancy in the LMKM.

## **2.6 Research objectives and questions**

The objectives of the study are to explore the experiences and coping mechanism of adolescent mothers as well as the interventions in place to reduce adolescent pregnancy in the LMKM in Ghana.

The specific questions the study seeks to answer include;

- What challenges do adolescent mothers face?
- How are adolescent mothers coping and what are the resources they draw on to enable them to manage with teenage motherhood?
- What are the current intervention programmes aimed at addressing adolescent pregnancy?
- How can these interventions be improved so as to support adolescent mothers and help reduce adolescent pregnancy?

### **Chapter 3. Theoretical framework**

The theory of salutogenesis developed by Antonovsky (1996) will be used as the theoretical framework for understanding the lived experiences and coping mechanisms of adolescent mothers. The theory will also be used as a guide to improve or design interventions to address adolescent pregnancy. The health promoting concepts of participation, equity and empowerment are the central elements of the salutogenic perspective on health and the theory focuses on the resources/assets of individuals and communities to promote health (Eriksson & Lindström, 2008).

The theory of salutogenesis focuses on salutary factors, that is, factors that move people towards health; an understanding of the origin of health and how people can cope with stressors in life, as a roadmap for maintaining a healthy life. The salutogenic orientation views health as a continuum, which Antonovsky labels as health ease/dis-ease continuum. He argues that the individual at any point in time will move along this continuum, between an absence of health (dis-ease) and health (ease) (Antonovsky, 1996). This movement is initiated by the stressors people encounter in their lives. If people are able to cope successfully with the stressor, they move towards the health side of the continuum, however, if people are unable to cope successfully with the stressor, this can lead to breakdown and move them towards the dis-ease end of the continuum (Super, Wagemakers, Picavet, Verkooijen, & Koelen, 2015).

The theory of Salutogenesis emphasizes on salutary factors such as social bonding and physical exercise that orient people towards health and not risk factors. Salutogenesis advocates for active participation of the individual, that is, the individual recipient of an intervention should be actively involved in the process, constantly finding ways to adapt successfully to a stressor. It also seeks to answer the question why a section of the population is coping successfully with a stressor and how they are doing it (Mittelmark et al., 2017).

#### **3.1 Sense of Coherence and Generalized resistance resources**

The theory of salutogenesis is based on two core concepts which are the sense of coherence (SOC) and generalized resistance resources (GRR)/specific resistance resources (SRR) (Antonovsky, 1996). People with a strong sense of coherence are able to understand and comprehend stressors, that is, they are able to know the impact or implications of the stressor and assess if the stressor could lead to a breakdown. The second component of the SOC is how people are able to manage a stressor, that is, people being able to identify and mobilize resources they need to cope with the stressor either seeking help from family and friends,

acquiring information or using tangible resources available. The third component of SOC is meaningfulness, which explains what motivates people to deal with a stressor and whether the stressor is worth dealing with. The SOC therefore explains the general orientation of people to a stressor founded on the concepts of comprehensibility, manageability and meaningfulness (Mittelmark et al., 2017).

The second concept is the GRR/SRR. These are resources that are available to an individual that could facilitate coping. The GRR are the wide range of resources that can be used to cope with a stressor. Examples include social networks, family, culture and online resources. The SRR are the situation specific resources that a person can draw on to help cope with a stressor. These include money and specific information about a stressor. The successful application of these resources could result in resisting a stressor and move an individual towards healthy living. There is a form of reciprocity between the SOC and GRR where the GRR enhances an individual's SOC which in turn motivates an individual to mobilize GRR to cope with stressors (Mittelmark et al., 2017). *See appendix 1* for the generic salutogenic model of health.

### **3.2 Theory of salutogenesis as a guide to design intervention programmes**

The salutogenic approach is useful in building a healthy public policy as recommended in the Ottawa Charter for health promotion (WHO, 1986). Building a healthy public policy emphasize the creation of a supportive environment in which people can identify both their internal and external resources and be able to use them to promote a healthy living (Lindström & Eriksson, 2009). It also requires the involvement and participation of target population or community in formulating and implementing health promoting policies as well as collaboration between different sectors of the society that influence the health of the population. The concept of participation involves the process of informing, consulting, engaging, collaborating and empowering citizens to take control of their health and well-being in policy or programme design and implementation (Head, 2007). People become empowered when they have the skills, knowledge and ability to make decisions about their health by being able to influence decisions and policies that affect their health.

The salutogenic approach to building a healthy public policy would start by identifying the resources/assets on individual, inter-personal, external and global levels. The individual level would identify resources to support physical, mental and spiritual health as well as general well-being. The inter-personal level would identify means of social cohesion and social capital, the external level identifying means to improving the economy, housing and education and the

global level would be identifying cultural values, laws and their compliance to human rights and equity. This helps to identify what resources are available and the mechanisms required to improve SOC and support the development of positive health. The concept of participation is relevant for empowerment and for enabling people to comprehend the situations they face in life. (Lindström & Eriksson, 2009).

The theory of salutogenesis is relevant for this study as it focuses on preserving good health and well-being using the concepts of SOC and resource-based approach to health that enable people to cope with stressors and maintain health.

## **Chapter 4. Research design and methodology**

This chapter presents the choice of research methodology and strategy, and a detailed description of the various methods, tools and techniques that were used to collect, analyse and interpret the research data. It also presents a description of the research site and categories of participants that took part in the research as well as the sampling strategies that were used to select research participants. The chapter further provides justification for the choice of methods and steps that were taken to ensure that ethical standards were met and also ensuring the quality of the research data.

### **4.1 Research approach**

The study was conducted using a qualitative methodological approach with a phenomenological strategy. Qualitative research as described by Kothari (2004) investigates and provide knowledge on the behaviour, attitudes and opinions of individuals or group of individuals. The qualitative research also involves the study of research problems that seek to investigate the meanings people or a group of people ascribe to a social problem. In doing so, qualitative studies require the collection of research data in its natural setting and using the voice of participants to describe and interpret the problem being studied. This study adopted a constructivist/interpretivist paradigm. The constructivist/interpretivist paradigm sees reality as subjective and knowledge as a social construct which arises out of different value systems, experiences and culture (Carter & Little, 2007).

The phenomenological research strategy is a qualitative research approach that describes the lived experiences of individuals about an event as described by the participants (Creswell, 2014). This approach is appropriate for understanding the context of a social issue and exploring the experiences of research participants and the meaning they ascribe to those experiences (Skovdal & Cornish, 2015). This study seeks to explore the lived experiences and coping mechanisms of adolescent mothers and intervention programmes as described by stakeholders and hence the choice of a phenomenological strategy.

The phenomenological approach is suited for this study as it gives adolescent mothers an opportunity to share their individual experiences and also to provide a detailed understanding of the context and setting in which adolescent mothers live. The phenomenological approach also provides an opportunity for stakeholders responsible for the well-being of adolescents to share their views on the phenomenon of adolescent pregnancy and what they are currently doing to address this issue.

## **4.2 Study area**

The research was conducted in the Lower Manya Krobo Municipality. It is one of the 26 administrative districts in the Eastern Region of Ghana. The major towns within the municipality include Odumase (which incorporate Atua, Agormanya and Nuaso), Akuse and Kpong. The municipality shares boundaries with Upper Manya Krobo district to the North, Asuogyaman district to the North-East, Yilo Krobo and Shai Osudoku to the south and North Tongu district to the East. The population of the Lower Manya Krobo municipality according to the 2010 population and housing census is estimated at 89246 with 41470 males and 47776 females. The major economic activity within the municipality is farming and trading. The area is also well known for its beads industry and large mango plantations. (Ghana Statistical Service, 2014).

According to the Ghana AIDS Commission (2019) report, the Lower Manya Krobo municipality has the highest prevalence of HIV/AIDS in the country with a rate of 5.56% at the district and municipal level. This means that adolescent girls who engage in unprotected sex are not only exposed to the risk of pregnancy but are also at risk of HIV/AIDS infection.

The Lower Manya Krobo municipality was chosen for this study because of the high prevalence of adolescent pregnancy and its associated social and economic consequences. *See appendix.2 for map of Lower Manya Krobo Municipality.*

## **4.3 Study participants**

The study comprised of two main categories of participants, primary participants and key informants. The primary participants were the main target of the research and they included mothers who are 17 years and above and had their first child whilst they were adolescents, that is, age 10-19 years. For the purpose of this research they are referred to as adolescent mothers. The youngest mother (primary participant) was 17 years and the oldest was 35 years. The key informants included stakeholders who were responsible for implementing interventions that affect the lives of adolescents. These key informants include health workers (midwives), school heads and teachers, administrative staff at the municipal health and education directorate and administrators of NGOs within the municipality. Although the initial research plan was to include the queen mother of the area as a key informant, this was not possible owing to the fact that she went on leave and also subsequently felt ill which made it difficult to schedule an interview with her during the period. She was however instrumental in accessing some of the key informants as she was also a staff at the municipal education directorate. The total number of research participants were 26, 14 adolescent mothers and 12 key informants.

### ***Inclusion criteria***

For the primary participants to be eligible to participate in the research, they should be 17 years and above. The primary participants should also have had at least one child whilst they were adolescents. This criteria is relevant in getting to understand their experiences as young mothers. They should also be resident within the Lower Manya Krobo municipality. This criteria was important in finding out how they were coping with the resources within their environment. Selecting key informants was based on their experiences with adolescent mothers and their knowledge of the phenomenon of adolescent pregnancy within the lower Manya Krobo municipality. For this category of participants the selection was based on their job description, that is, how much contact and influence they have in the lives of adolescents in an official capacity.

### ***Exclusion criteria***

Adolescents who were pregnant for the first time at the time of the fieldwork were excluded from the study. This was necessary as they were not yet mothers and hence do not have the experience of teenage motherhood. Excluded from the study were also adolescent mothers who were 16 years and below as they were considered minors. Health workers such as doctors, physician assistance and nurses who performed general duties that are not directly related to adolescent pregnancy were excluded.

### ***Gatekeepers***

Gatekeepers are people who have authority to access a research site and who link researchers with research participants (Skovdal & Cornish, 2015). Recruitment of participants started at the administrative level, that is, at the municipal health and education directorate. The contact persons at these institutions facilitated access to key informants at the various health facilities, schools and NGOs who were in a position to provide relevant information for the study. The key informants at these institutions also acted as gatekeepers, facilitating access to and recruitment of the primary research participants. Majority of the primary participants were recruited at the health centres with the help of the midwives when they came for post-natal care. The midwives introduced the researcher to the primary participants and assisted in explaining the purpose and objectives of the research to them. An administrator of one of the NGOs also aided in recruiting some of the primary participants who were enrolled in vocational training at the NGO office. A local informant within the community was also helpful in recruiting one adolescent mother.



#### **4.4 Sampling method**

Sampling in qualitative research involves identifying and selecting participants and a research site that can provide a clear and adequate understanding of the research problem (Creswell, 2007). The study used a combination of purposive and snowball sampling to identify and recruit relevant segments of the population who had similar experience of the phenomenon under study. Purposive sampling involves the deliberate selection of research sample segments or participants that are well-informed and knowledgeable of the phenomenon being studied (Etikan, Musa, & Alkassim, 2016).

The choice of sampling method was informed by the research questions and the choice of research strategy. As indicated by Creswell (2007), when conducting a phenomenological study, it is essential that all research participants experience the phenomenon being studied. Purposive sampling was therefore appropriate as it allowed the researcher to deliberately select the relevant participants who have experienced the phenomenon of adolescent pregnancy and who met the selection criteria in order to gain an understanding of their different perspectives and experience (Punch, 2014). Purposively selecting research participants with similar characteristics and experiences was also helpful in establishing common themes and trends in the data analysis phase.

The first phase of the sampling process was to identify the various sampling segments for the study who could provide valuable information to the research. The sampling segments that were of interest to this study include adolescent mothers; health workers (midwives); teachers; NGO staffs; traditional leaders; and health and education administrative workers.

The next phase was to select individual participants out of the various sampling segments. Using purposive sampling, midwives, school heads, teachers, NGO staffs and a health administrative staff were recruited from selected health centres, schools and NGOs within the research area. The health centres served a dual purpose. The various health centres were deliberately selected as they were located in different local communities (Atua, Odumase, Nuaso, Kpong and Okwenya) within the Lower Manya Krobo municipality and were accessible to the researcher. They also served as convenient environments to recruit and interview senior midwives and adolescent mothers.

Most of the primary participants were recruited at the health centres and at an NGO premises using random purposive sampling. Random purposeful sampling is a purposive sampling strategy that involves identifying sample segments purposefully and then randomly selecting individual informants from the purposive sample (M. Q. Patton, 2014). With random purposive sampling, the researcher first identified the target sample segment, that is, adolescent

mothers. Each member of the sampling segment stood an equal chance of being selected if they met the inclusion criteria, were readily available and were willing to participate in the research. The random purposive sample was appropriate for this sample segment because it has a larger pool of potential primary participants (Skovdal & Cornish, 2015). It also added credibility to the research data and avoided researcher bias (M. Q. Patton, 2014).

Snowball sampling method was also used to select some primary participants. Snowball sampling is the process that involves one research participant recommending or leading to the selection of other research participants (Leavy, 2017). One midwife called some of the primary participants on her phone and inquired of them if they were interested in participating in the study. Those who were interested came to the health facility to be interviewed. One primary participant was interviewed at the home of a traditional birth attendant (TBA), as she had just given birth to her second child three days before the interview. This participant was recommended to the researcher by another midwife.

The selected schools were purposively chosen based on recommendation from the contact person at the municipal education directorate who identified them as some of the schools that recorded incidents of adolescent pregnancy. Only two NGOs were identified within the Lower Manya Krobo municipality at the time of the fieldwork, which were involved with issues relating to adolescents. These NGOs were also identified on the recommendation of the contact person at the municipal education directorate.

***Table 1 Primary Participants (Adolescent mothers)***

List	Pseudonym	Age	Age at first pregnancy	Number of children
1	Yaa	35	14	1
2	Mamavi	20	18	1
3	Dzefa	23	17	3
4	Maame	23	17	1
5	Nioki	17	14	2
6	Abla	20	17	2
7	Emefa	18	17	1
8	Akos	21	19	1
9	Adzo	19	16	2
10	Dede	34	18	2
11	Korko	19	18	1
12	Mansa	30	18	2
13	Maku	17	15	1
14	Adjoa	22	19	1

**Table 2 Key Informants**

Category	Number of participants	Position
Midwives	5	Senior Midwives
Head Teacher	2	School head
School teachers	2	Girl child coordinator
NGO Staffs	2	Managers of NGO
Administrative staff	1	Health promotion officer

#### **4.5 Data collection methods**

Data collection is the process of gathering rich information in order to answer a research question (Creswell, 2007). In qualitative research, this process is concerned with the collection of primary or secondary textual or non-numerical data from research site or participants (David & Sutton, 2011). The data collection process starts by identify the research site, the forms of data to be collected and from whom the data will be collected. It also includes selecting the most appropriate data collection tools that will generate reliable and quality data for the research. (Creswell, 2007). This section focuses on the method that was used to gather data from research participants.

For this study, a semi-structured one-on-one interview was used to gather data from research participants. Interviews are the most popular form of data gathering tool in qualitative research. Interviews are a formal or informal conversation between an interviewer (researcher) and an interviewee (a research participant or group of participants). The interview could either be in the form of a one-on-one interview, that is one researcher and one participant either face to face or over the telephone, or it could be a group interview, between a researcher and two or more participants. (Punch, 2014).

In this study, one-on-one in-depth interviews were conducted with all participants with the aid of an interview guide in order to elicit the views and opinions of participants (Creswell, 2014). The interview guides comprised of open-ended questions which allowed the participants to express themselves at a greater length, ensuring a high degree of depth in the information they provided (David & Sutton, 2011). Separate interview guides were designed for each sample segment based on information the researcher wished to gather from the segment. The interview guides were designed to reflect the research objectives and questions. *See appendix 3, 4 and 5 for interview guides.*

The one-on-one personal interview was appropriate for gathering in-depth and detailed information about the experiences of the participants from their point of view and it also

allowed for participants to elaborate on key issues and speak for as long as they wanted. The interview was also appropriate as it afforded flexibility, offering the researcher the opportunity to restructure the interview questions and to ask follow up questions or ask for clarification from the response of the participants and it also allowed for the interview to be conducted in a language convenient for the participants (Kothari, 2004). The interviews were audio recorded using an audio recording device with the verbal consent of participants prior to the commencement of the interview.

### ***In-depth interview with adolescent mothers***

One-on-one in-depth interviews were conducted with 14 adolescent mothers. Ten adolescent mothers were recruited and interviewed at the various health centres. One mother was interviewed at her home and another at the home of a TBA. Two other mothers were recruited and interviewed at the premises of an NGO. English is the official language in Ghana and almost all the primary participants spoke and understood English. As such most of the interviews were conducted in English. Four of the interviews were conducted in two different local languages (two in Twi and two in Ewe). The participants requested to speak in the local language since it allowed them to express themselves more confidently and accurately. The researcher did not require the services of a translator since he could understand and speak both local languages. Although the participants did not have control over the location of the interviews, the contact persons at the health centres and NGO provided a private room for the interviews to be conducted. This ensured that the information shared by participants were kept private and confidential. They also expressed that they felt more comfortable and open in sharing their experiences in the absence of the contact persons and other individuals within the environment. The average interview time for the primary participants was 24 minutes, with the longest interview lasting for 47 minutes and the shortest interview, 15 minutes.

### ***In-depth interview with key informants***

A total of twelve key informants were interviewed for this study, three males and nine females. The key informants are professionals who work in the health and education sector as well as in non-governmental organizations. They are directly involved in the lives of adolescents and adolescent mothers in different ways. The key informants selected for this study were in charge of providing education, guidance and services on adolescent sexual and reproductive health as well as providing vocational training services. One-on-one in-depth interviews were conducted with these key informants. All the interviews except one was conducted at the offices of the key informants. One key informant requested for the interview

to be conducted at her home since the interview was scheduled after office hours. The average interview time with the key informants was 39 minutes, with the longest interview lasting for 59 minutes and the shortest interview, 16 minutes.

#### **4.6 Data analysis and management**

The research data was analysed using thematic network analysis (Joffe & Yardley, 2004). Thematic network analysis is a qualitative data analysis technique for identifying, analysing, interpreting and reporting trends from the data. It is a flexible data analysis tool that helps to organize data into themes and sub-themes to provide a “rich and detailed account of the data” (Braun & Clarke, 2006, p. 78).

Data analysis started with the transcription of interviews from audio to text. This was done manually, that is, the researcher listened and typed all the audio recordings into text. A thorough reading of the interview transcript was done to have a sense of the general ideas of participants. The next task was generating a coding framework. The coding framework is a list of codes (keywords or phrases) that have been generated to label sections of the data (Skovdal & Cornish, 2015). The codes were then applied to units of information in the data set. They provided meaning to segments of the data and formed the basis for identifying patterns in the data, generate themes and summarising the data (Punch, 2014).

The next phase was to generate themes and sub-themes. This involved identifying patterns and relationship between the codes. Codes that represented similar ideas or had a common meaning were categorized into basic themes. The basic themes were further categorised into organizing themes and global themes. The process of coding and generating themes was iterative as the researcher kept generating new codes and themes and merging or renaming existing ones to adequately describe the data. Generation of codes and themes was guided by the research questions. *(See appendix.6 for coding framework)*

During the data gathering process, an audio recording device was used to record interviews with participants. The interviews were then transferred to a secured laptop for transcription and the final interview transcripts were stored on the computer. The laptop was secured with a password. The audio recording device and laptop were in the sole custody of the researcher. The Nvivo software was useful in managing data and concepts generated from the data (Bazeley & Jackson, 2013). NVivo software was used in the process of coding and organizing data into themes.

#### **4.7 Trustworthiness of research.**

The study is required to demonstrate good research practice. This means that the findings must be truthful, relevant and trustworthy, and the researcher has to be honest and transparent (Yilmaz, 2013). To uphold the quality of this research, the research findings need to be credible, transferable, dependable and confirmable (Shenton, 2004). These criteria are relevant in assessing the truthfulness, trustworthiness and consistency of qualitative research findings.

##### ***Credibility, transferability, dependability, and confirmability.***

The *credibility* of qualitative research implies that the research findings are true and a reflection of reality (Seale, 1999). Achieving research credibility requires the researcher to select the most appropriate research approaches and methods that best answer the research questions (Graneheim & Lundman, 2004). Credibility is also achieved by means of triangulation (Tracy, 2010). This involves using multiple data sources or data collection methods (Shenton, 2004). Rich and detailed description of the research site and participants is also relevant in judging the quality of the research data (Yilmaz, 2013). This study adopted the constructivist/interpretivist paradigm. With this philosophical worldview, the study adopted the phenomenological research design and the use of in-depth interviews for data gathering to be able to capture and communicate the common experiences of research participants in their own words.

Although the study used only one data collection method, data was collected from a wide range of participants. This allowed the researcher to capture multiple perspectives and to have a broader and deeper understanding of the phenomenon being studied (Morrow, 2005; Yilmaz, 2013). This also enhanced the quality of the study as the researcher was able to cross reference and corroborate information provided by research participants (Creswell, 2007). A detailed description of the research site and participants was also done to provide the social, cultural and economic context within which the experiences of participants occurred (Morrow, 2005).

The provision of detailed information about the research site and participants allows for the research findings to be compared to similar communities that share the same cultural, social and economic characteristics with the research site (Shenton, 2004). The *transferability* criterion for assessing the quality of qualitative research deals with the possibility of the research findings to be applicable to similar settings or context (Yilmaz, 2013). This is however not a central objective of qualitative studies, as it is mostly concerned with the subjective

experiences of a group of people and not to generalize the findings to the entire population (Gasson, 2004).

**Dependability** of qualitative research findings is concerned with the consistency of research findings, that is, whether similar findings would be achieved if the research were conducted at a different time in the same context using the same methods and category of participants. This requires a detailed explanation of the research process and methods. (Shenton, 2004). This study provided a detailed description of how the research sample was identified and recruited and how data was collected and analysed. This therefore allows future researchers to replicate the study using the processes outlined in the study. This criteria is however difficult to achieve as the research participants and the social and environmental context are most likely to change over time.

The detailed description of the research process and method and the use of source triangulation also allowed for **confirmability** of the research findings. The confirmability criteria is aimed at reducing researcher bias and ensuring that the research findings, as much as possible reflect the views and perspectives of the participants and the issue being studied (Morrow, 2005).

#### **4.8 Reflexivity and positionality**

In qualitative studies, the researcher is seen as the primary instrument of data collection and analysis who cogenerate knowledge with the research participants (Watt, 2007). It is therefore imperative that he/she reflects and report on the role and extent of influence he/she has in the research process (Jootun, McGhee, & Marland, 2009). Reflexivity is therefore a process of self-assessing the researcher's position in the research process (Leavy, 2017). The position of the researcher may include personal characteristics such as age, gender, knowledge, values and belief system, place of resident, personal experiences and biases. These have the potential to influence access to the research site and participants, the relationship between the researcher and the participants and the process of data collection, analysis and interpretation (Berger, 2015).

To guide against any potential biases in the collection, analysis and interpretation of the research data, the researcher adopted the process of phenomenological reduction/bracketing (McCabe & Holmes, 2009). This required the researcher to set aside preconceived ideas, knowledge and personal interpretations of the phenomenon being studied (Jootun et al., 2009). The researcher is from Ghana and resided in Yilo Krobo District which shares boundaries and same cultural, social and economic characteristics with Lower Manya Krobo Municipality. The

researcher was therefore familiar with the phenomenon of adolescent pregnancy and some of the factors and challenges associated with it in this area. This prior knowledge did not however affect the credibility of the research data as the researcher kept an open mind and allowed participants to freely share their experiences and opinions. This was helpful in separating the researcher's views and experience from the research topic.

As a male researcher exploring the experiences of adolescent mothers, it was important to have a female intermediary that the adolescent mothers could trust. The researcher did not have a female research assistant. Although efforts were made to recruit a female research assistant, no one was readily available to serve this purpose. The choice of location for the interviews with most of the adolescent mothers was therefore instrumental in bridging the gender gap. Most of the interviews were conducted at the health centres. These are places that adolescent mothers visit frequently. They were therefore familiar with the environment and had established trust and friendly relations with the midwives who introduced them to the researcher. The trust and friendship they had with the midwives made it easy for them to relate with the researcher and feel comfortable sharing their experiences in a private setting without the presence of another female.

My position as a researcher studying abroad also had the potential of influencing access to the research participants and the information they were willing to share. Some of the key informants were curious about my choice of research topic and location. They were concerned about the constant attention being drawn to "*negative*" issues in the area, as one key informant expressed off record "*you are interested in washing our dirty linen in public*". Which implies that Ghanaian students studying abroad come to research and expose only "*shameful*" things about the country. As a researcher it was important to explain the purpose and significance of the research to the participants as the primary purpose of the research is to address some of these social issues that adversely affect their health and well-being and to identify potential resources that can enable them to take control of their health. .

#### **4.9 Ethical considerations**

Ethics in research are the guidelines that regulate the conduct of research (Neuman, 2013). Meeting ethical standards in research requires for all aspects of the research process to be evaluated and approved by a research review board of the institution authorizing the research as well as institutional approval from the location at which the research will be conducted (Leavy, 2017). Researchers also have to consider practical ethical issues related to research



participants in the field. These include issues of confidentiality, securing informed consent from participants and protecting participants from harm (J Green & Thorogood, 2014).

### ***Research clearance***

Clearance for this research was approved by the Norwegian Center for Research Data (NSD) before the commencement of fieldwork. The clearance was granted after all necessary information regarding research site and sample; interview guides; information letter and consent form were submitted to NSD for assessment. NSD was notified of changes that occurred during data collection with regards to the age category of primary participants and were duly approved. *(See appendix.7 for research clearance from NSD and appendix.8 for notification of changes to NSD)*. The researcher also secured clearance from both the Lower Manya Krobo Municipal health and education directorate. This provided access to the research site and participants. *(See appendix.9 and 10 for research clearance from municipal health and education directorate)*

The study also addressed ethical issues that concern research participants. These issues include informing participants about the research and securing their consent, upholding their privacy and confidentiality and protecting them from harm.

### ***Information letter and consent form***

Before the commencement of each interview, the participants were informed about the objectives and purpose of the research and why they were chosen to participate as well as the implication of their participation. The researcher took time to explain the rights of participants in the research. Participants were informed of their right to voluntary participation, that is, they were under no obligation to participate if they did not want to. They were also informed of their right to withdraw from interviews without any reason and could request for any information they provided to be deleted. All participants, after carefully reading and understanding the terms of their participation, signed an informed consent form. The researcher also asked for consent from the guardian of one primary participant who was 17 years and considered a minor. *(See appendix 11 and 12 for information letter and consent form for primary participants and key informants)*

### ***Confidentiality***

The identity of participants and all the information they provided were kept strictly private and confidential. All audio recording of interviews and the anonymized interview transcripts were in the sole custody of the researcher and the interview transcripts were shared

with the principal supervisor. All participants were given pseudonyms to protect their real identity in reporting the research findings. This means that research participants cannot be identified by any information referenced to them in the final research write up. The privacy of some key informants could not however be adequately protected since they were occupying key official positions in their various institutions and it was important to reference the office information attributed to them. This could possibly expose the real identity of the occupant of the said office at the time of the research. The researcher however secured their verbal consent to reference them using their official positions or title.

### ***Protection against harm***

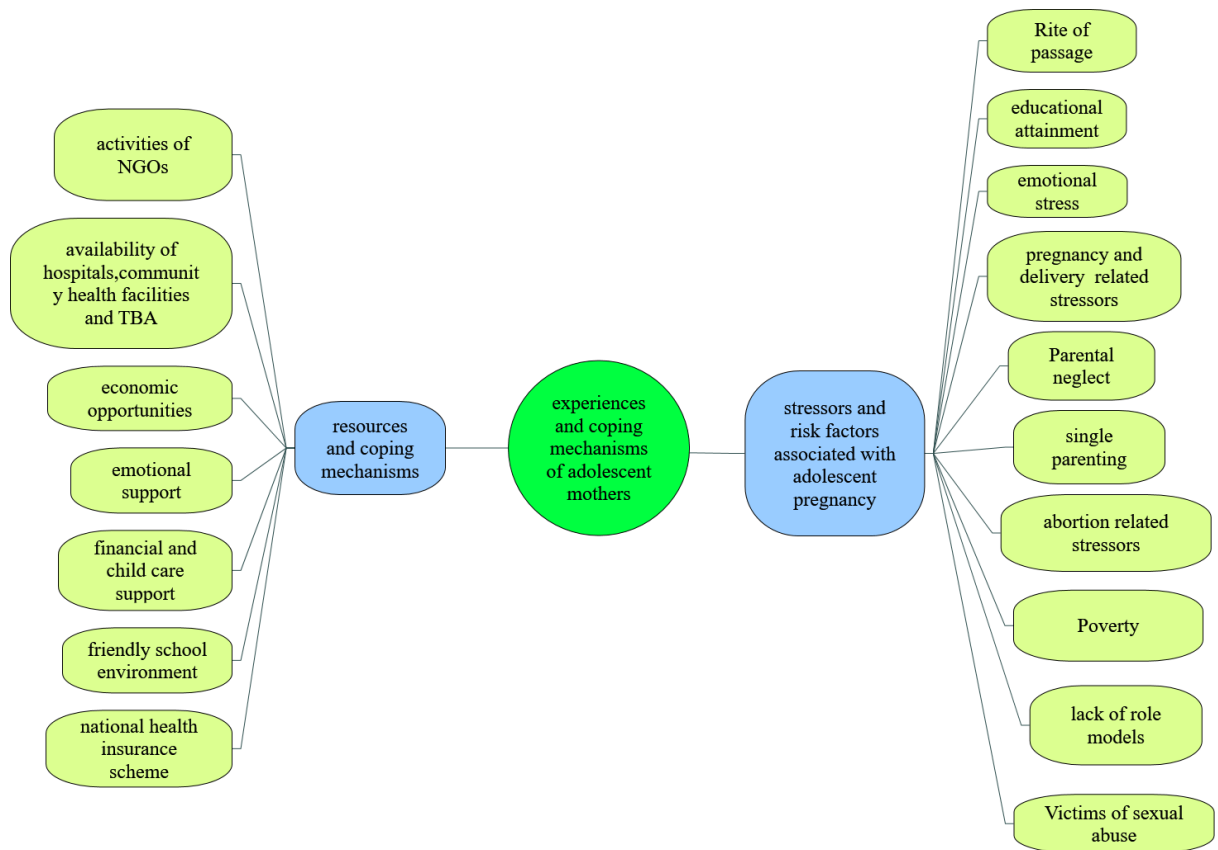
It was also important to protect primary participants from emotional harm. The research topic can be considered quite sensitive as it deals with the personal lives and struggles of adolescent mothers. This had the potential to trigger negative emotional responses. The researcher was therefore mindful not to ask sensitive and offensive questions. The researcher did not also probe further on certain issues when there was indication that the participants were not comfortable discussing such issues. There were non-verbal cues like burying of the head, nodding or shaking their heads in response to a question. These were indications that they were not comfortable discussing those issues.

## **Chapter 5. Findings**

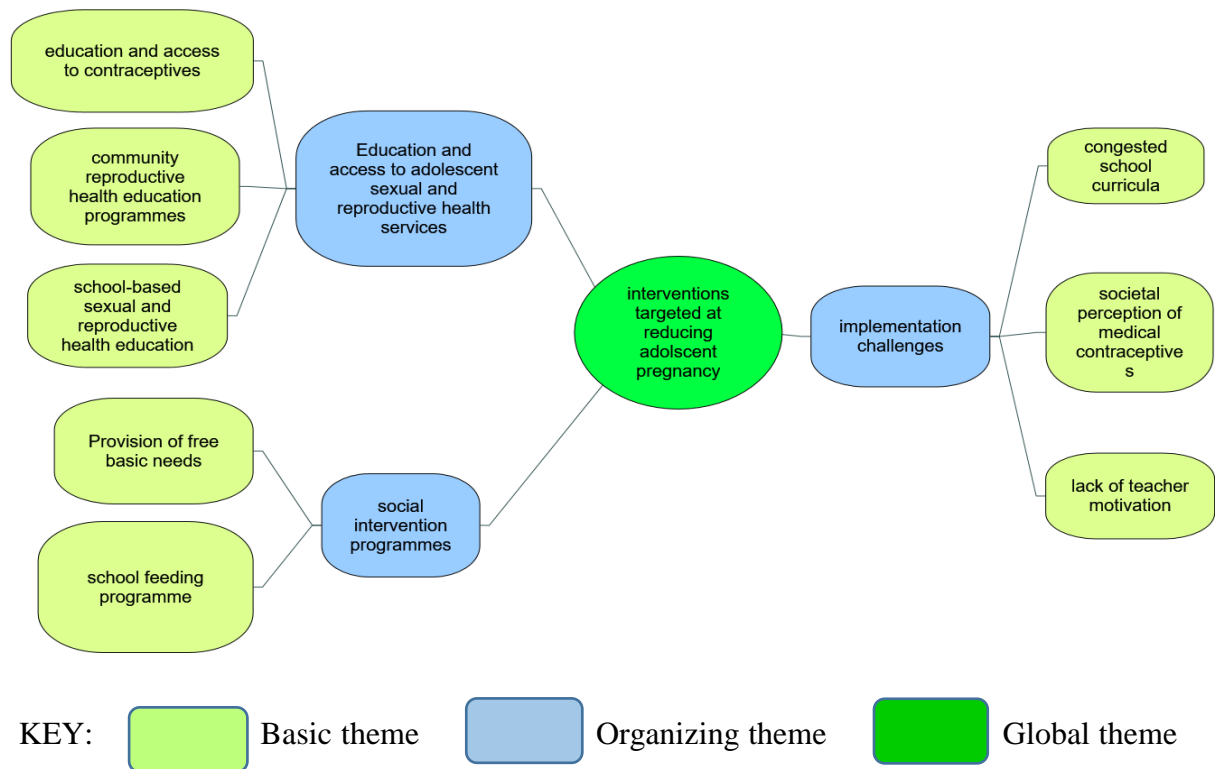
### **5.1 Introduction**

This chapter presents the findings of the research. After a thorough and detailed analysis of the data using the thematic network analysis, the data was organized into two main global themes; the experiences and coping strategies of adolescent mothers; and interventions targeted at reducing adolescent pregnancy. The data was further broken down into organizing themes and basic themes that reflect the main global themes. The stressors and risk factors associated with adolescent pregnancy; and the resources and coping mechanisms are the two organizing themes that explain the experiences and coping strategies of adolescent mothers. For the interventions targeted at reducing adolescent pregnancy, the organizing themes include education and access to adolescent sexual and reproductive health services; social intervention programmes; and implementation challenges. Several basic themes emerged from the organizing themes to explain the individual experiences of adolescent mothers and resources they rely on as well as some of the interventions that are aimed at reducing adolescent pregnancy. The findings are illustrated with quotes from the research participants. The thematic network analysis is presented in the figure 1 and 2 below;

**Figure 1 Thematic Network: Experiences and coping mechanisms of adolescent mothers**



**Figure 2 Thematic Network: Interventions targeted at reducing adolescent pregnancy**



## **5.2 Experiences and coping strategies of adolescent mothers**

### **5.2.1 Stressors and risk factors associated with adolescent pregnancy**

The stressors and risk factors associated with adolescent pregnancy explore the various challenges that adolescent mothers face during the period of pregnancy and after delivery as well as the various factors that push adolescent girls to engage in early sex leading to pregnancy. The stressors and risk factors include poverty; challenges in both the social and physical environment within which adolescent girls live; issues relating to abortion; cultural norms; single parenting; education; emotional challenges and pregnancy related challenges.

#### ***Poverty***

According to participants, poverty is a major challenge affecting the lives of adolescents and adolescent mothers within the Lower Manya Krobo Municipality. Most adolescent girls are from very poor and deprived homes, as such they are unable to meet their most basic needs and the necessary support they need to complete their education. Their parents do not have enough money to provide for their basic needs such as clothing, sanitary pads, food, books and school uniforms. Some girls who find themselves in this kind of situation end up having sex with men who are willing to provide them with these basic necessities leading to pregnancy. The adolescent mothers who participated in the interviews mentioned the lack of care as a reason they had a boyfriend to enable them provide for their needs.

*Because of my mother's inability to provide for us I moved to my older brothers in the city hoping that they will send me to school. Even though they sent me to school I had trouble with feeding, they did not give me money for feeding. Sometimes they just give me ghs 1.00 which cannot buy anything. I had a male friend in school and he was my class mate... he used to give me money to buy food. He came to propose love to me, and because my older brothers could not give me money for feeding at school, I accepted his proposal and I used to visit him at home and that is how I got pregnant. (Dzefa)*

Another adolescent mother expressed the need to take a boyfriend in order to support herself

*The time that I am in JHS (Junior high school) form 2 and my father left us, so we did not have anybody to look after us in school, so I met a man who buy everything for me, so I was staying with this man when I got pregnant. If I had someone to take care of me in school I would not have taken a boyfriend because my father will provide for me. (Adzo)*

Poverty was a major concern raised by most of the primary participants and key informants as a factor contributing to adolescent pregnancy in this area. One key informant expressed how

some adolescent girls are unable to afford basic items like sanitary pads and therefore engaged in sex to get money;

*...so with the adolescent girls in the schools, in fact on our one on one interview with them we realise that the main reason why some of them indulge in early sex is that they do not have money to buy their monthly pad. (Health promotion officer)*

Also, some of the adolescent mothers who depended on men for their survival reported not having the power to decide on the use of protection during sex;

*I learnt about condoms in school but my man does not like it, is the man who take care of me so I cannot decide. (Adzo)*

This was confirmed by one of the key informants;

*So we advise them to use condoms, some of them it is like they do not have any choice because the man is taking care of her and she has no say. (Midwife 5)*

Adolescent girls continue to have financial challenges during their period of pregnancy and after delivery. Most of the adolescent mothers do not work and they lack money to buy food and other basic necessities. They therefore depend largely on their parents, partners or benevolent persons to provide for their needs and the needs of their children. In the absence of these people they find it difficult taking care of themselves and their babies.

*The time I got pregnant that time my husband is not having enough money for us, sometimes food and things it was very difficult for us. (Maku)*

One of the key informants explained the financial difficulties adolescent mothers face and how midwives at the hospital have to contribute to buy some basic items for adolescent mothers.

*...also what to eat, sometimes they will be here(hospital) we will contribute and buy food for them, at times too we give them dresses for the baby, many things, they do not have it and their mothers too do not have, so we have to help. (Midwife 2)*

A schoolteacher expressed concerns about how adolescent mothers find it difficult providing nutritious food for themselves and their babies,

*...so lack of finances to cater for themselves and their babies, so nutrition wise, in fact there is a challenge, they cannot feed themselves well let alone feed their children. (School teacher 1)*

### ***Parental neglect***

Some adolescent girls also face neglect from their parents and are forced to provide for themselves. The lack of parental care was one of the concerns expressed by key informants as a leading factor in the prevalence of adolescent pregnancy in this area. In their view, most

parents do not show much care and concern towards the well-being of their children especially the girl child. The girl child at puberty is expected to be responsible for her own up keep.

*The few incidents we have at the school is normally due to lack of parental care, those children are lacking parents taking good care of them and assisting them, so they are the ones found wanting. (Head teacher 1)*

*We have parental irresponsibility, people just give birth without thinking of what the child eats... So parents do not actually get interested in their children... that is what I have observed over the years. (Executive director YOWE)*

This was a concern expressed by most of the key informants and it is a reflection of how parental neglect force young girls to depend on men for survival. One adolescent mother shared an account of how her father threw her out of the house and she ended up living with a man leading to her pregnancy;

*...my father said I will not stay with him again so he gave me my bags so I went to stay with a friend, but my father went to tell my friend's mother if anything happens to me she will be held responsible so my friend's mother ask me to leave, that time I met this man so in the evening I will go and sleep at his place that was how I got pregnant. (Maku)*

### ***Victims of Sexual abuse***

Many adolescent girls within this area fall victim to sexual abuse. Some adolescent girls become pregnant from being sexually abused by men in their neighbourhood or male relatives and they are unable to report to the police or talk to their parents because they would be tagged as bad girls and no one will believe them if they went forward. One adolescent mother narrated how she was sexually abused leading to her pregnancy;

*... So one day I went to the house to fetch water but it was raining so the father asked me to sit in the house and wait for the rain to stop before I go home, so that is how his son got the chance to force himself on me, I want to shout but he stopped me from shouting. After doing that I did not say anything else. (Korko)*

A second mother narrated how she was drugged and abused sexually leading to her pregnancy;

*It was vacation and me and my friends we went out... and they were all drinking so me too they gave me some of the drink but I do not know what they put inside so when I finished drinking I was feeling dizzy and I felt like I want to sleep and when I woke up I did not know what happened so when I came to the house and a month later I was*

*vomiting and my mom ask me what is happening and I said I do not know and we went to the clinic and they said I was pregnant. (Noiki)*

One key informant explained the complex nature of sexual abuse and the difficulty adolescent girls face in reporting such forms of abuse and seeking for help and protection from their abusers;

*...A lot, you see and unfortunately most of them are connected to very close relations for example step fathers, long distance uncles, co-tenants and family friends in the vicinity and I know there are more but those people somehow succeed because they end up giving the children money and other goodies, so majority keep quiet, so the novice are the ones you see running to you to report at first contact that so so and so person wants to abuse me and they get scared because they are close relations and if they happen to talk to their parents, the mothers about it they will be looked at as bad children, bad girls, or people who want to destroy families instead of victims. So when all hope is lost and they do not have anyone to run to, they come to you as a teacher because of the way I relate to them. You see it is embarrassing but then that is the fact, when you report some of these incidents to the police they do not see it as an issue. (School teacher 1)*

### ***Lack of role models***

In lieu of the high prevalence of adolescent pregnancy in this area, adolescent girls lack role models who they can look up to and who can guide them in making decisions concerning their sexual life and career. Most adolescent girls within this area are products of adolescent pregnancy and they are surrounded by relatives and friends who are adolescent mothers. They therefore perceive adolescent pregnancy as a norm.

*Because of this problem, a young girl coming up finds herself in a family house which is common here where you have aunties, cousins who in one way or the other might have fallen victim to this early parenthood or teenage pregnancy stuff, you see them and they are the people around you, so that influence is there. If you grow up around such people and you see them struggle and the only way they survive is to fall on men and other things, so you will also think that is the order of the day. (School teacher 1)*

### ***Rite of passage***

The rite of passage called “*Dipo*” among the Krobos has been perceived to be associated with the prevalence of adolescent pregnancy within the Lower Manya Krobo municipality. This rite



of passage is performed for girls who are virgins up to the time they reach puberty. The original idea was to perform the rite for girls who are considered to be old enough to marry, so the ideal age for the performance of the rite was after 16 or 17 years at which time the girl might have had her first menses in the olden times. However, in recent times the rite is being performed on children as young as 1 year old. It is therefore believed that girls who have gone through the rite at an early age feel they are free to have sex. One adolescent mother acknowledged the rite was performed for her when she was just a child;

*I did dipo, as at the time I did the dipo I was a child learning how to walk so I did not even know that they had done anything to me, so it was when I was older that they told me. (Yaa)*

One key informant explained that the essence of the *dipo* rite is to prepare the young girl for womanhood and marriage;

*you know in this krobo area we have this culture we call dipo, which is the puberty rite meant for the young girls, and if you study carefully the origin of this rite, it was a kind of adorable ceremony held for the teenage girl who has been able to keep her virginity till puberty...(School teacher 1)*

She further explained that the original idea of the *dipo* rite served as a check on the young girl and hence prevented them from engaging in sex before the rite is performed as they risk being ostracised from the community or would not be able to marry;

*...Formally there is this fear put in the girl that if you start having sex before they perform the rite for you it is a taboo and they will be cast out of the society so that helped to keep the girls chaste...But because things are changing around our time it has worsen the situation, so if I have my rite performed for me at 5 or 7 years it means from 9 onwards if I understand what sex is and I want to indulge in it without any proper guidance they fall into that so this is what culturally I think the effect we are having here. (School teacher 1)*

This was a widely held view by most of the key informants. This change from the original idea of the “*dipo*” has been attributed to the cost of performing the rite and conflict between current Christian beliefs and traditional practices.

*Hmmm, some people are saying finance, it cost less when the girl is younger compared to when the girl is older. Some are also hiding behind Christianity, their Christian beliefs does not permit them to do the dipo, they see it as a custom which goes with deities and rituals yet the community is saying they must do it for their girls, so for that*

*matter let me do it for the girl at a tender age when people would not recognise that I have done it. (Head teacher 2)*

Another key informant also shared similar concerns and further stressed that modern civilization and early physical development of girls in recent times drives most parents to perform the rite at an early age in an attempt to protect their children from exposing their naked bodies to the public.

*...But what I think is, people are now civilised in a way that you cannot expose a child's breast or nakedness though they are trying to cover it up, but these days, children as young as 9 years have their breast big. So in order for my child not to grow for these features to show before the rite is performed, let me do it at a tender age by then she does not know anything, she does not know any shyness. That is what I see to make them try to do it early for them. (School teacher 2)*

### ***Single parenting***

Single parenting is a common phenomenon within this area. Most adolescent mothers are raised by one parent, mostly their mothers, and they also end up raising their children as single parents. Some of the informants attributed this to the inability of some of the girls to identify the man responsible for the pregnancy and also some men deny being responsible for the pregnancy. The responsibility of caring for the child is therefore placed solely on the girl and her family. This is a wide spread phenomenon as recounted by some adolescent mothers and key informants.

*I had some problem with the boy who got me pregnant, he denied the pregnancy because he claimed I had another boyfriend so he was not responsible for the pregnancy, so he did not take care of me. (Maame)*

Another mother explained how her boyfriend denied being responsible for the pregnancy;

*When I got pregnant the guy denied the pregnancy. (Dede)*

Some of the key informants also corroborated the claim of men deny being responsible for the pregnancy;

*In most cases the men responsible deny the pregnancy, so they leave the girls to go and suffer alone, so this burden goes along to the parents. (Manager AFPEO)*

A midwife expressed concern about how some of the pregnant girls are unable to identify the man responsible for the pregnancy;

*Most of them they do not even know who impregnated them, so the babies are with their mothers. (Midwife 2)*

A schoolteacher explained the inconveniences adolescent mothers go through in having to raise a child alone which pushes them to engage in transactional sex;

*...so as a way of getting money, you see them falling on other men, even though they have babies they are involved in other sexual relationships with other men with the same mentality of getting money. (School teacher 1)*

Single parenting was also linked to the customs of marriage and claim of paternity in this area. According to the Krobo and most Ghanaian marital customs, a man cannot claim paternity of a child until he has customarily married the woman. Also, if he wants to marry the woman or claim paternity of the child after pregnancy, he is supposed to pay some fine as a form of punishment, including the bride price. This makes it difficult for some men to owe up and take responsibility for the child and the mother.

*Our customs, especially in the Dangbe society, the customs are sometimes too severe for the man to go forward for the child, so when he feels that he will be in trouble then he will escape... It includes a lot of things like you have to pay some huge money, pacify the gods with some certain things before you can enter the family house, so when they sum up all these it becomes a huge burden, that is if you do not marry the girl before you get her pregnant you cannot be responsible for the girl and the child so all the burden now falls on the girl and her family. So a lot of people too cannot do that customary rite, so they are all running away. (Manager AFPEO)*

Most of the adolescent mothers who were interviewed indicated that they were living with their parents or a family relative because the men who got them pregnant did not perform any marital rites. One adolescent mother explained why she is not living with the father of her child;

*He has not paid my bride price so he has not married me and I am not allowed by my culture to live with him. (Abla)*

### ***Pregnancy and delivery related stressors***

Adolescent girls, like any other woman experience stress and complications that comes with pregnancy. However due to the economic conditions that adolescent girls find themselves prior to their pregnancy, they encounter challenges that they will normally not encounter if they were pregnant in other circumstances. As narrated by some key informants, most pregnant adolescents do not have money to afford a healthy meal that contain the right amount of nutrients. This puts them at risk of complications such as anaemia and low haemoglobin.

*because most of them that are pregnant are anaemic, you realize that they are eating but they are not meeting all the 4 star nutrients and instead of them eating healthy food*

*they go to buy these indomie (brand of noodle) things, so at the end of the day when they come, you will realize that their HB (haemoglobin) is low. (Midwife 3)*

Another midwife shared some of the pregnancy related complications that they record at their health facility;

*Most of them we get these anaemia because they are not able to eat well, take care of themselves... they are not working, they are staying with someone and the person has to cook before they can eat. Mostly is their nutrition, their diet because they do not have the money to really eat well.... (Midwife 5)*

Aside the complications during the period of pregnancy, adolescent mothers who participated in the interview narrated how they were not able to give birth by natural means. They reported having to go for Caesarean-Section (C-Section) and experiencing severe pains.

*...at the hospital they said I cannot give birth naturally so they took me to the theatre for operation. When I came home I was in a lot of pain for about a month and a half. (Akos)*

*I was afraid because I have never given birth before and when it was time to give birth they said unless they do the operation. My first child was operation and the second one was also operation. I was 18 years when I had my second child. Because of the operation I was not feeling well because I was going through lots of pain for about 2 months. (Adzo)*

### ***Abortion related stressors***

Pregnant adolescent girls are faced with a difficult decision to either abort or continue with the pregnancy. Abortion is a very contentious issue within the Ghanaian society with diverse religious, moral, cultural and personal perceptions. Some pregnant adolescents who wish to abort a pregnancy to enable them continue with their education or learn a vocation have very limited choices owing to the negative societal perception of abortion. Teachers, parents and health workers try to discourage pregnant girls from aborting a pregnancy using the fear of death, barrenness and divine punishment to get the girl to continue with the pregnancy. One adolescent mother explained why she continued with her pregnancy even though she wanted to abort it;

*because I was in school I want to abort the pregnancy but my grandmother told me first pregnancy we do not abort it, if you abort it and it affects you, maybe you are unable to give birth in the future you will blame yourself or the person who took you to the*

*hospital to abort it. I did not abort the pregnancy because of what my grandma tells me, it put fear in me that in case I go to abort it and I do not die and I am alive and I happen to find a husband and I do not give birth too I will blame my grandma. (Mansa)*

Some adolescent mothers explained how abortion is seen as a taboo and related to superstitious beliefs within their families about the consequences of abortion, discouraged them from aborting the pregnancy;

*In our house, our great great fathers they said for us we do not abort a child so if you are pregnant you have to give birth otherwise you will die. One of our aunties tried it and she died. (Korko)*

*...in our family we do not do abortion, in our family if you are going to have an abortion, in my mother's side they have those juju(folk magic) thing in the house so if you are going to have an abortion you will die and I believe in it. (Akos)*

Although abortion is legally permitted in Ghana, most of the health professionals, based on their personal conviction and beliefs, choose not to perform abortion for pregnant women who request for it.

*So me, in my opinion, abortion I will not do it, but I will direct you because maybe if you do not advise the person to go to the right person she may come back in a worse condition, she may bleed to death. So me if they come I advise them, I will talk to them. (Midwife 2)*

*So mostly when they come desperately to do abortion we talk to them and counsel them to see if they will change their mind to keep it, if not we direct them to (name of hospital withheld)... We just do not want to encourage them, if they know that it is being done, then they know if they get pregnant they can just come to the health center and they will do it for them. (Midwife 5)*

Most pregnant adolescent girls who decide to abort a pregnancy resort to self-induced abortion. Those who cannot get their way in the hospital or cannot afford to pay for safe abortion performed by a professional, resort to local concoctions and herbs. Some of the adolescent mothers recounted how they tried multiple times to abort the pregnancy by themselves.

*I tried several medication but it did not work, I went to hospital but they took my money and said they have aborted it but after 3 months I notice I was still pregnant so I went to buy a tester and it showed that I was still pregnant, so I tried again but it did not work, so I just gave up. (Yaa)*

*I tried so many times more than 5 times to abort the pregnancy, but it did not work. First when I told the guy he said I should go for Guinness and sugar, I did that it did not work, they said Nescafé with sugar, it did not work and I started using medicine and those things, it was not working, when I did all those things I thought I am free, it was after six months that I realized the baby was still there and by then it was too late I could not do anything about it so I kept it. (Emefa)*

Incidents of unsafe abortions was confirmed by some of the key informants;

*Here, that one they like it, they do it, they do the unsafe abortion, and I have been hearing people doing it. (Midwife 1)*

One of the midwives explained how they handle incidents of septic abortion at their health facility;

*Yeah, sometimes they come and we try to manage it but we still refer them to the hospital, some even lose their lives as a result. But as we are in the community we get to hear of it when they come we give them the first aid and refer them to the hospital. (Midwife 5)*

### ***Educational attainment***

The low level of education within the Lower Manya Krobo area is considered to be contributing to incidences of adolescent pregnancy. This was a view held by most of the key informants;

*Their educational level is low, that is a major contributing factor. (Midwife 3)*

Some of the key informants further expressed girl's lack of interest in school;

*They do not like going to school, you will see a girl of 19 years and she is coming to give birth to her third child, so she started giving birth around 14 years, so they do not want to go to school. (Midwife 2)*

This view was expressed by another key informant. In her view, some girls prefer to sell on the street in order to make some money instead of being in school. She sees this as a risk that exposes them to men leading to pregnancy.

*This place, what I have seen is, you know mostly they do the trading by the road side, selling, so they get quick money from there, most of them refuse to continue with their education... so ones they are not in school and they are selling, those drivers are also around, so definitely they will start from there, that is my personal view. (Midwife 5)*

Adolescent pregnancy is seen to have adverse effect on the education of girls in this area. Accounts of adolescent mothers and key informants indicate that those who got pregnant whilst in school were not able to continue with their education.

*I was in school, JHS 1 when I got pregnant, I was around 17 years and I dropped out.  
(Maame)*

Most of the adolescent mothers expressed their desire to return to school after giving birth if they had the necessary support.

*I wanted to go back to school, I told my older brothers I want to go to school, but they said they brought me from my mother so that they could send me to school, but I did not make a way forward in my education so there is no more chance for me to go back to school. (Dzefa)*

*...I cannot go back to school because there is no one to take care of my 2 children.  
(Abla)*

A schoolteacher explained the inconveniences that adolescent mothers go through in having to nurse a child whilst attending school, which forces them to drop out of school.

*having worked with them and observing them, it brings a lot of frustration, and it also affects their education because let's say during the time of keeping this pregnancy and nursing the child majority of them drop out of school and they never come back, just about 2% will master courage and come back to school and even with that, they have a lot of difficulties because they need someone to take care of the child whilst they are away to study. (School teacher 1)*

### ***Emotional stressors***

Some of the adolescent mothers also reported going through psychological and emotional stress. Some reported feeling sad and shocked upon getting to know they are pregnant. Others also lived under the fear of bringing shame to themselves and their parents. This drove them to find ways to abort the pregnancy without the knowledge of their parents. One adolescent mother recounted how she could not tell her aunt she was pregnant because she felt ashamed and scared of how she will react.

*...Like she is a pastor's wife so like I was scared, telling her I do not know how she will feel, she is the one who raised me up to now, it is like a shameful act on her. I felt guilty, I was very sad, sometimes I sit quietly and I do not want to talk to anyone, is like I feel guilty, I think people would not mind me if I talk to them. (Korko)*

Another adolescent mother also recounted her state of shock when she found out she was pregnant as she was not ready to become a mother;

*I was shocked, I am not feeling happy because I was not ready to have a child and I got pregnant so am not happy about that. (Adzo)*

Some adolescent mothers also suffer stigma from older people in the society. They are perceived to be bad girls who have gotten themselves pregnant at an early age. One mother recounted how she could not go out into the public for fear that people will be gossiping about her;

*Some too they speak about me, I was worried and ashamed too, as a young girl going to school and getting pregnant, so when the pregnancy was about 6 months I was not going to the road side and I was not close to anyone, I was always in my room all the time. (Mansa)*

A key informant also expressed similar sentiments of the stigmatization that adolescent girls suffer in the public;

*The young girl suffers so much. The first one is public accusation, she is bad, she has gotten pregnant, so when she goes out, they say ooo you, you have gotten pregnant, so I have always said, it takes two people to bring pregnancy, but our system is such that the focus is only on the girl, everywhere, but where is the adult man who got the girl pregnant? So that stigma is always there, so the accusation is there, they go through a lot of things. (Executive director YOWE)*

### **5.2.2 Resources and coping mechanisms**

Most adolescent mothers, as narrated from their experiences, go through several challenges. However, in the midst of all these adversities there are certain resources within the society that enable them to thrive. Some of these resources include community health facilities and traditional birth attendants (TBA); the national health insurance scheme; economic opportunities that help them earn a living; NGOs that provide vocational training for adolescents and adolescent mothers; financial support from close relatives, partners and benevolent individuals; a friendly school environment for pregnant adolescent girls and mothers; emotional support from parents, teachers and health workers; and other forms of support from close family relatives.

#### ***Availability of hospitals and community health facilities (health centres and Community-based Health Planning Services (CHPS) Compounds) and TBA***

Each local community within the Lower Manya Krobo Municipality has at least one health facility that takes care of the healthcare needs of the community members. This makes



healthcare services easily accessible to pregnant adolescents and adolescent mothers. The Lower Manya Krobo Municipality has two main hospitals located at Atua and Agormanya and 15 health facilities which include seven health centres and eight CHPS Compounds located at different communities. The hospitals and health facilities provide a wide range of maternal health services. Most of these include antenatal, delivery and post-natal care services. They also provide counselling on pregnancy related issues; family planning services and balanced diet. Most of the adolescent mothers interviewed recounted the kind of services they usually receive from the health facilities and how it helped them.

*When I was pregnant I was going for antenatal, I have been coming here... I like the service. It has really helped me. (Korko)*

*...regularly I go there every 3 months. I take my drugs and everything. It is good, actually I will advise every pregnant woman to take the ANC very seriously, it really helped me. Sometimes when you go for the first time they will take scans, and the scan detect whether the baby is having any disabilities. (Adjoa)*

Most of the adolescent mothers considered the health facilities as a useful resource where they can get medical attention. The health centres also provide counselling on healthy meals they should eat in order to improve their health,

*They also advise us on the things to eat, they tell us to eat fruits and vegetables and we should also keep our environment clean. (Noiki)*

Some of the midwives explained the information they provide for pregnant adolescents on the physical changes and stressors that come with pregnancy;

*So when they come we tell them as you are pregnant now there will be some physical changes, emotional changes so in case you encounter any problem you come and tell us then we will know what to do for you, then aside that we tell them during the first trimester sometimes you have nausea, some not able to sleep, some will be complaining of waist pains, so we tell them the physiological changes that takes place during that phase for them to really get to understand it. (Midwife 4)*

The midwives at the health facilities also provide family planning services. They educate young girls and mothers on the importance of using contraceptives and provide them with the relevant information on contraceptive use. Most adolescent mothers recounted how they were assisted in adopting family planning services to prevent future unplanned pregnancy;

*Before I gave birth to the third child at the hospital, I agreed to do the family planning and they advised me on it, and recommended one for me and advised me on its side effects after which she did it for me at the hospital. (Dzefa)*

A key informant reported a high adaptation of family planning within their community and how they educate those seeking family planning services on the side effects of medical contraceptives;

*In this area they really come for the family planning. Those in school, those in the house they come... we tell them about the side effects so if they are encountering any problem they should come to us, they did it with us so they should come to us, because those in the community do not have that knowledge about family planning so it is better they come to us or any nearby facility for them to explain it better to them. (Midwife 4)*

Aside the health facilities, this area also has a lot of TBAs who perform deliveries. Some of the adolescent mothers reported giving birth at home with the assistance of a TBA.

*I was helped by the traditional midwife, after that I went to the hospital the next day. (Abla)*

#### ***National health insurance scheme (NHIS)***

Another important resource that enable pregnant adolescents and adolescent mothers to cope is the NHIS. Pregnant women are registered for free on the scheme and it takes care of the bills they would have had to pay to seek medical care during their pregnancy and after delivery. This helps to reduce the financial burden on adolescent mothers who could otherwise not have been able to afford to pay the insurance fee and also provide them the opportunity to receive free maternity care. Although the insurance does not cover laboratory test and ultra sound, it does cover most of the medications and services that are required by pregnant women. One mother narrated how the insurance helped her;

*The health insurance helped me a lot when I was pregnant, because when I got pregnant for the first time I did the health insurance in the ninth month and I gave birth 2 weeks after that so I did not pay any money. With my second child I used to go for antenatal care but I did not pay any money, I only pay for the scan which is not covered by the health insurance. With the third child too it is the same when I go to the hospital I did not pay but they take good care of me. (Dzefa)*

The midwives also explained how the health insurance is benefiting pregnant adolescents and adolescent mothers;

*As for health insurance and pregnancy it is a bit flexible so most of the medication too are on the NHIS so that one we prescribe and they go and take and when they get pregnant too the NHIS is free they only have to come for the ANC card and they will do it for them for free. (Midwife 5)*

### ***Economic opportunities***

Some adolescent mothers within this area engage in different economic activities to enable them earn a living. Majority of adolescent mothers who are unable to continue with their education after giving birth often engage in petty trading or learn a vocational skill. Most of them sell things like sachet water, fruits, food and several other items which they use to support themselves. Some of the adolescent mothers mentioned some of the economic activities that they engaged in to enable them take care of themselves and their children;

*... I used to sell biscuits and candy, I was getting money through that so I was not asking anyone for money, I sell these things and I got lots of money so I started selling used clothes but I did not save the money, I was spending a lot because I thought I had enough money. (Yaa)*

Adzo, an adolescent mother explained her motivation for engaging in petty trading and how that has empowered her;

*...If you do not work you would not get to eat, but the man if you give birth for them, then like from 3 months going they are following another woman, so if you are sitting down and you say the man should work and provide for you, then you would not get it, so I have made my mind to start doing some small business so I will get to eat. I do not trust that the man will take care of me and my child. Now I have control of my life because it is not all the time that the man gives me money. (Adzo)*

There are a number of vocational training centres and schools that train adolescent girls in sewing, hair dressing and catering. One mother narrated enrolling in a catering training programme when she could not continue with her education;

*Yeah I learnt a vocation, I learnt how to bake pastries (pie, doughnut), I learnt from my mother and there was also a training institute that came to teach us for about 1 month, we paid GHS80. So I can bake pastries. (Maame)*

Another mother shared her skills in sewing and trimming men's hair and her plans to learn fashion design;

*... For me sometimes I have been trimming peoples hair, I can barber and I can sew. I have to go and practice fashion design, they do some at (name of place withheld) so I*

*have to go and do some of those things... so that is what I told my auntie I want to do. If she said she do not have money for university I can go to that school, for me after 3 years I can easily learn to be a fashion designer. (Korko)*

### **Activities of NGOs**

There are two Non-governmental Organizations (NGOs) within the Lower Manya Krobo Municipality whose activities are designed and targeted at improving the lives of adolescents and adolescent mothers. The two NGOs are YOWE (Youth and Women Empowerment) and AFPEO (Adolescent Friendly Peer Educators Organization). The activities of these two NGOs include livelihood programmes and empowerment; providing financial support for adolescents and adolescent mothers who need start-up capital and support to continue with school. They also offer adult literacy programmes and education on reproductive health, safe abortion and HIV sensitization. They also organize fun games as a tool to mobilize adolescents within the community. The executive director of YOWE explained the different programmes that they roll out to support young people and empower women.

*...Initially we started something we called REFLECT, it is like adult literacy, it is a literacy programme, within that we have the youth component, and we normally discuss issues concerning youth, concerning women, and then the general populace... we talk about teenage pregnancy and even their livelihood, what they have to do to earn some living. (Executive director, YOWE)*

He also explained the need to provide young mothers with the necessary financial support to enable them further their education or start their own business;

*Because some of them in the process especially the young girls when they get pregnant some are rejected from the family so do we allow these people to go waste? There is the need to reorient them, some can easily go back to school or find some job doing. In terms of the economic aspect, those that we sponsored or gave some loans to do some businesses too we are able to improve their lives. (Executive director, YOWE)*

He further discussed how they partner with other NGOs to provide vocational training for adolescent girls and adolescent mothers.

*So we have some programmes currently running with Columbia University and we have a partnership with Millennium Promise, they are sponsoring us to at least give some skills to young ladies. we have some we train for bee keeping, pomade and soap making, we supported some too to do what we call glass blowing, they make these candle stands and other things. (Executive director YOWE)*

They also provide education on reproductive health, safe abortion and HIV sensitization. The manager of AFPEO explained the activities they carry out and how they organize fun games as a tool to mobilize adolescents within the community,

*...We are trying to educate the youth on reproductive health, and healthy lifestyle behaviours. We have some adolescent groups within our catchment area, so we do engage, go to them and educate them, we organize seminars and meetings for them and fun games for them. So on the entertainment front when they finish playing football we gather them to give them reproductive health education, so these are some of the strategies and ways we engage with these adolescents. We as an NGO we do education on safe abortion, because we realise the adolescents are practicing unsafe abortion, so during our family planning education we do put in some of these things, safe abortion. (Manager AFPEO)*

### ***Financial and child care support***

Some pregnant adolescents and adolescent mothers who are unable to support themselves financially, get financial support from their parents, and partners and other benevolent individuals. This helps them to buy their basic needs and also pay for other medical services that are not covered by the health insurance. Some of the adolescent mothers recounted the financial support they get from their relatives to enable them go to the hospital for health care;

*In terms of money, any time I ask for money for hospital or medicine, they know I do not work so anytime I ask for money they give me, if my auntie does not have she call my uncle and he sends money. (Korko)*

Another mother narrated the financial support she received from her partner;

*He took good care of me, as for that one he did well, he bought me clothes, everything like anything that I like. For me that time I was not doing anything, it is the man who is taking care of me, everything, he is a fisherman, but now he is not fishing again he is learning a trade. (Maku)*

Aside financial support, adolescent mothers also get support from their mothers or grandmothers to nurse their babies. This form of support enable them to either return to school, learn a vocation or engage in an economic activity to support themselves. Some of the adolescent mothers mentioned the willingness of their mothers to care for their children while they return to school;

*I was schooling during the time of my pregnancy, 6 months after I gave birth, my mom collected the child and I was schooling again. My mom is ready to support me in school (Nioki).*

### ***Friendly school environment***

The various schools are encouraged to provide a safe environment where pregnant girls or nursing mothers will feel welcomed and comfortable to study. Adolescent girls who got pregnant whilst they were in school mostly felt ashamed and shy of returning to school for fear of their colleagues and teachers teasing or abusing them. However with recent changes in the GES (Ghana Education Service) regulations regarding adolescent pregnancies, pregnant school girls are allowed to continue with their education whilst they are pregnant or they can choose to stay out of school and return to school after giving birth. They are also given special care and attention whilst they are in school. Some of the schoolteachers at the basic school level (primary and junior high schools) explained the type of care and support systems they have within their school environment to help pregnant school girls through their studies and to protect them against stigmatization;

*we had one incident, she was in the school with us, when she comes to school, you make sure as a head and as a class teacher she eats at the right time, she eats the right food...take enough rest, do that, till the child delivered, so when she gets tired in class, you know when it gets to the stage the baby says sleep, you cannot say no so this was her bed (pointing to a bed like structure), she just walks in, greet me and just sleeps here and then that is all. (Head teacher 1)*

Another teacher narrated how the schoolteachers try to motivate the pregnant girls and encourage their colleague students to be supportive;

*I can talk about 2 instances where they were in the final year and realise that they were pregnant, I gave them the necessary support together with the other teachers around, we encourage them... When they get to school we spoke to their colleague girls, so they have been supportive, helping them around, keeping their company so that they feel well in school...so they felt quite comfortable until they took their exams and then left. (School teacher 1)*

One adolescent mother also narrated what their schoolteachers informed them to do and the kind of support they will get within the school should they happen to get pregnant whilst in school;

*They talk to all of us...about how you will be treated if you happen to get pregnant as a teenager and you do not have anyone to support you. (Nioki)*

### ***Emotional support***

Adolescent mothers also narrated receiving emotional support from their parents, siblings, teachers and schoolmates in accepting their new reality and finding a way to move on. One mother narrated the emotional support she received from her schoolmates and teachers;

*My schoolmates even come to visit me at home, and I am also happy, they come and make me laugh. When I gave birth I went to the teachers and they encouraged me to come back to school. (Abla)*

Another mother also recounted how she received words of encouragement from her siblings;

*sometimes my sisters get closer to me, talk to me that this is not my intention and that I should forget everything, they encourage me, they said if they do not encourage me to stop thinking I will think like I have to abort the pregnancy so they talk to me to keep the child. (Korko)*

A head teacher explained the counselling services they offer pregnant adolescent girls to motivate them and make them feel welcome in the school so they can focus on their academic work;

*We provide a lot of counselling so that they do not look like they are odd among their colleagues, because ones the person sees herself as odd among her colleagues the mind set will not be prepared for academic work or any other thing so we provide a lot of counselling so that it takes their mind off that thing. (Head teacher 2)*

### **5.3 Interventions targeted at reducing adolescent pregnancy**

A number of interventions have been introduced in the health and education sectors with the aim of reducing adolescent pregnancy. These interventions are mostly educational programmes that are focused on educating adolescents in schools and within the community on reproductive health. In recent times there has also been advocacy for contraceptive use amongst adolescents, where health professionals encourage adolescents who are unable to abstain from sex to use medical contraceptive and condom to protect them against unwanted pregnancy, sexually transmitted infections (STIs) and HIV/AIDS. There are also a few piloted social intervention programmes that sought to provide basic necessities such as food, school uniforms and books for school children. The quotes in this section are mostly from key informants who were in charge of implementing these programmes.

### **5.3.1 Education and access to adolescent sexual and reproductive health services**

There have been a recent increase in education and access to sexual and reproductive health services in basic schools, health facilities and within the community. The essence is to create awareness of the importance and use of sexual and reproductive health services. The basic themes that emerged include; education and access to contraceptives; community reproductive health education programmes; and school-based sexual and reproductive health education.

#### ***Education and access to contraceptives***

The health facilities provide education and access to various types of medical contraceptives. Adolescent girls are now able to receive education at the health facilities on the usage and side effects of contraceptives. The health facilities also have a dedicated room for adolescents called ‘*adolescent corner*’. This is a place where adolescents meet occasionally to discuss and ask questions about issues affecting them with the guide of a health professional. Each ‘*adolescent corner*’ has a dedicated nurse in charge of issues relating to adolescents and they provide adolescents with information and counselling on safe sex. One adolescent mother recounted how she got information about reproductive health and family planning from ‘*adolescent corner*’ before she got pregnant;

*Sometimes they ask you if you have a boyfriend, if you say yes they ask you what you do with the guy, but me I do not have a boyfriend, but I try to ask questions about it, my friends also have been saying what they do. Me too I have been asking questions about girlfriend and boyfriend and what they do. They said they have pills, condoms you can take it if you want to go to your boyfriend so you do not get pregnant and if you take the pills and you have a problem they can come and talk to you. They gave us a lot of information about family planning. (Korko)*

The health promotion officer at the municipal health directorate confirmed the presence of such facilities at the various health centres to provide reproductive health education and services to adolescents.

*...so now we have adolescent health corners in all our clinics and our hospitals, when you go to (name of health centre withheld) we have adolescent corner, so those girls who upon all the education they still cannot abstain from sex we advise them to come and do family planning, but they should know that family planning is for preventing of pregnancy but not STIs especially HIV/AIDS. When you go to our facilities, we can even take some of the girls there, do it for them but before that we seek the consent of their parents first. (Health promotion officer)*



Some midwives also explained some of the things they discuss during their meetings at the 'adolescent corners' and how they counsel adolescents on the side effects of medical contraceptives.

*with the club we talk about abstinence and condom use and those things, so you realize that most of them they pledge that they will abstain, so some also come maybe after school they come, those who are interested to do the method (family planning), they come to us and we offer. When you come for the service we will counsel you on it (side effects of medical contraceptives). (Midwife 3)*

Another midwife also explained the education they provide on the types of contraceptives and how they encourage adolescent girls to use condom to protect themselves against STI and HIV and unwanted pregnancy.

*We educate them on the types of family planning we have, the condoms, male and female condoms, the injectable, 1 month and 3 months then the long term we have the implant for 3 years and 5 years. We tell them among all the condom is the best because it prevents them both against STI and pregnancy... we stress on STI and HIV/AIDS, so taking the injectable or pills does not protect you from STI and HIV/AIDS, it is only pregnancy. (Midwife 1)*

### ***Community reproductive health education programmes***

Education on reproductive health also go beyond the school and health facility environments. The health workers also organize a general campaign to talk about reproductive health issues in the various communities. This affords an opportunity for young girls who are not in school to get to know about reproductive health services. They mostly educate the community members on the relevance of using birth control measures.

*Once in a while we do general campaigns, so we go to the community and talk about family planning, its importance to the individual, to the community, to the nation at large. Once a year we do this campaigns and also during the festivals, the staff here they go round educating them based on what they find, that is what we educate them on. (Midwife 4)*

### ***School-based sexual and reproductive health education***

In lieu of recent debates on reproductive rights and the common occurrence of pregnancy among school girls, the GES introduced reproductive health topics into the teaching curriculum. The essence is to educate adolescents at the basic school level on issues relating to

sex and the dangers associated with unprotected sex such as risk of STI and HIV infection and pregnancy. One schoolteacher explained how they are now opened to teaching basic school students about everything relating to sex and reproductive health.

*Well, we must be grateful to GES, when you study our syllabus carefully, I think right from the basic school, we have concepts of introducing these girls to the human anatomy, how the body works, especially the reproductive system, health issues and other things... especially where they need to be cautious as they approach adolescence... so we just do not hide anything from them. (School teacher 2)*

She further explained how including reproductive health education in school curriculum is important in addressing pregnancy among school girls;

*most girls have had the opportunity to get to understand what sex is all about and how to manage as adolescents because most of the parents do not discuss this at home and most of them are novice, they have no idea how to handle themselves, but in school as you open up and share with them on that friendly background they get to learn, they ask questions, you explain to them and most of them pick up and that has sustained them through their education to the senior high school level and others to the university. (School teacher 2)*

There is also the school health education programme where they teach the female students about teenage pregnancy, HIV and STIs and the ways to prevent them. One adolescent mother recounted what she learnt from the school health club;

*For the school we have girls club, they talk about we the ladies, how to keep yourself, how to take care of yourself... They say if you know you have a boyfriend or you are having sex and you do not want to get pregnant, what you do is to protect yourself from unwanted pregnancy. They also tell us there is medicine at the drug store we can go and buy, we can use condom or we can go and do family planning. (Mamavi)*

The health promotion officer also mentioned how they created adolescent clubs at selected schools based on the high prevalence of adolescent pregnancy in those schools.

*We have created adolescent clubs in five selected schools, we selected the schools based on the areas that are recording high rate of adolescent pregnancy, so we have (name of schools withheld). These are the areas that we record high rate of adolescent pregnancy so we decided to target the adolescents in the schools and let them know the effects of early pregnancy and also teach them some of the methods or help them decide for their future. So we started by educating them and then teaching them about what teenage pregnancy is, and then the effect of teenage pregnancy at that age and then*

*some of the factors that can bring teenage pregnancy and then how they can prevent themselves from getting pregnant. (Health promotion officer)*

The schoolteachers also encourage their students to participate in educational and leisure activities during their leisure time in an effort to get them active and not engage in risky sexual behaviour.

*We also encourage them to, we have this debate club, so that their leisure time instead of walking and talking ideally, we put them into groups, they come together and we give them topics on which they work on as groups, especially over the weekend so they bring the work back on Monday so that we all discuss. Aside that they should try to take up exercises and get themselves involved in these games and other things that will take their mind off sex and its associated effects. (School teacher 1)*

To improve the effectiveness of sexual and reproductive health education in schools, teachers tasked with educating students on this subject receive some form of training on how to handle issues relating to the girl child. The training is organized periodically and it takes the form of a workshop.

*Once a term they go for the workshop or as and when there is a programme like a national something they call them. so in every school we have teachers in charge of girl child so ones a term when school reopens they go for a workshop, so this term we are to deal with this, treat this topic and they come back and tell the other teachers who are in the group and we all follow suit and the officers will make sure we go through the scheme for the term and at the end of the term we give a report. (Head teacher 1)*

### **5.3.2 Social intervention programmes**

There are a number of social intervention programmes from government and private individuals targeted at vulnerable children in the society. However, not all children get to benefit from these social interventions as some of the programmes are piloted in certain selected schools. The government is currently running a feeding programme at some selected schools at the primary level in the Lower Manya Krobo Municipality. Certain benevolent individuals also come to the aid of some school children who need basic items like exercise books, sanitary pad and school uniforms.

#### ***School feeding programme***

The school feeding programme is a government initiative that sought to provide meals for primary school pupil. The programme is however limited to the primary level. Some of the

schoolteachers interviewed acknowledged having the school feeding programme at the primary level, but also indicated that most incidents of adolescent pregnancy do occur at the junior high school level where they do not benefit from the feeding programme.

*Well we only have the school feeding and that is for the primary school and unfortunately the pregnant ones end up in JHS, so there is nothing like that... Ever since I came here and even my predecessor, no primary pupil here in this school has ever gotten pregnant, but when I was in my previous school there was an incident in primary 4, but here in this school, no primary school girl has gotten pregnant. (Head teacher 1)*

Another teacher explained the coverage of the programme;

*...as it stands now at the school the government has introduced this school feeding programme policy but unfortunately it is just for piloted schools, it is not something that cuts across so in my school for instance at the JHS we are not covered but the primary section has that and in our municipality I cannot tell the number of schools there are in the municipality but I am sure that feeding programme is not covering even 5% of schools, so majority of the students are still vulnerable. (School teacher 1)*

### ***Provision of free items.***

Some school girls also receive free basic items like sanitary pad, school uniforms and books. These items mostly come from private individual donations. The municipal health directorate takes on the initiative to appeal to individuals to donate items like sanitary pad, which they then distribute to some girls in schools. The health promotion officer narrated their efforts in getting people to donate;

*the intervention we did is we were soliciting for sanitary pad from anybody at all, the staff here we collect pad from them every month, ... so when we have enough we go to one school and then donate to the ladies... For now that is what we are doing. ...one of the schools (name of school withheld) we sewed uniforms for 3 students, which we went there we saw that their uniforms, adolescent girls, their uniforms are torn, so we had to come together to sew uniform for them, some we had to come together and then buy clothes for them. (Health promotion officer)*

A schoolteacher also narrated how they use to have sanitary pads at their school for girls who need them;

*Others may say due to sanitary conditions they do not have money to buy pad... so there was a time we even had pad in the school, when we identify such issues we give them pads. Some of these pads are donated from the health directorate. (School teacher 2)*

### **5.3.3 Implementation challenges**

A number of challenges have hindered the implementation of the intervention programmes aimed at reducing teenage pregnancy. As narrated by the key informants, some of the interventions are helping to reduce the rate of pregnancy among adolescent school girls. The health professionals however complain of the negative societal perception of medical contraceptive that discourage some adolescent girls from using them. At the school level, teachers complain of the lack of support and motivation to assist them implement the programmes in a more effective and efficient manner.

#### ***Societal perception of medical contraceptives***

Health workers have to deal with the societal perception of the side effects of medical contraceptives. There is a wide spread view of the negative side effects of medical contraceptives. People who have negative experiences with these contraceptives create the impression that anyone who uses it will experience similar outcome. There is a general believe that these contraceptives can cause infertility or sickness. The health workers therefore have an extra duty to educate the general public about the side effects of these contraceptives and the fact that each individual reacts differently to them. Some of the adolescent mothers explained why they did not use any form of birth control;

*Ok, when I was in school I was told that you can protect yourself through using condom or injection but for me I am afraid of using those things, those medicine, they say you will become fat, I do not want it. (Emefa)*

*when I was in JHS a nurse came and talk to us about family planning but me at that time I did not know anything and also people used to say if you do that thing you will get sick, you will get fibroid, plenty sickness, so me too that time I was not feeling to do it. So I had information about family planning but I did not understand it. (Akos)*

One of the midwives also confirmed such perceptions about birth controls;

*...because the grown-ups even say they do not like it or they will become sick... they say if you use family planning you will get fibroid, so they are afraid of getting fibroid, they do not know the mechanism about family planning. (Midwife 2)*

### ***Lack of teacher motivation***

The teachers also complained of limited funding to support or motivate them for the extra work they do in organizing reproductive health education. The teachers narrated how they pay for their own transport and feeding whenever they have to attend a workshop to receive training and guidelines on reproductive health education. This limited funding also affected the frequency with which training programmes were organised for teachers. Some of the schoolteachers expressed their frustration over the lack of funding and support for the programme;

*...Motivation? Even our normal work there is nothing like motivation, even when the teachers go for the workshop, apart from water, they give them water to drink that is all, no transportation, nothing. They come and complain but then what else do we do, we take them as our children. But I think it is not the best. (Head teacher 1)*

Other teachers also mentioned how the lack of funding affects the organization of regular workshops to update them of current trends and what they need to do differently;

*there used to be frequent workshops for us but they will tell you for lack of money they are not able to organize any workshop, so some of us are dwelling on past experiences and because we have taken it upon ourselves to help, we look out for means to help, but I know most of my colleagues in other schools are not interested in this whole thing because there is no motivation so everybody seems to be going about his or her own business. There is nothing. (School teacher 1)*

The lack of interest of some teachers to participate in reproductive health education owing to the lack of motivation as expressed by one of the key informants (school teacher 1), seems to reflect in how some schoolteachers are reluctant in mobilizing their students for the school health talk. This was expressed by a midwife who is in charge of organizing health talks in schools in her community;

*The problem we have with the school health is the teachers, sometimes when we send the letter, instead of them to organise, we will go and they will say oooo we have forgotten. Right now we are doing some school screening, we sent the letter to them they fixed the time, when we went there they said the pupils came and they are only 6, like we need their parents to be present, but they were only 6 so we should go and they will reschedule, so it is very difficult for use to do these things and the community as a whole, so that is why the club is not that effective as at now. (Midwife 3)*

### ***Congested school curricula***

With the recent introduction of a new teaching curricula, the schoolteachers complained of not having extra time to organise reproductive health education on a regular basis. One teacher explained how they have to schedule extra time after morning worship to talk about reproductive health;

*Sometimes we do not have time, lack of time, we are using a new curriculum so we do not close early and it is fully packed, so when we see that we are not able to meet when we are supposed to meet then after our short worship on Wednesday then we bring the topic and everybody enjoys. (Head teacher 1)*

## **Chapter 6. Discussion**

### **6.1 Introduction**

The study findings unravelled the socioeconomic and cultural factors that are associated with adolescent pregnancy and that adversely affect the lives of adolescent mothers in the Lower Manya Krobo Municipality. The study also found several resources that adolescent mothers relied on to cope with the challenges of teenage motherhood as well as some interventions aimed at reducing the risk of pregnancy among adolescent girls.

This chapter discusses the implications of these findings using the stressor-resource and Sense of Coherence (SOC) constructs of the salutogenic theory (Antonovsky, 1996). The first section of this chapter discusses the implications of the stressors and resources as well as various interventions that emerged from the research findings in relation to existing literature. This is followed by an interpretation of the findings using the SOC component of the salutogenic theory. The stressors are the life situations that cause discomfort to individuals or group of individuals. The resources, on the other hand, represent the tangible or intangible assets of individuals, family or community that enable them to successfully cope with the stressors. This is what Antonovsky referred to as generalised resistance resources (Antonovsky, 1996).

### **6.2 Stressors**

#### **6.2.1 Poverty and educational attainment**

The findings of this study indicate that adolescent girls who come from poor and deprived backgrounds are more likely to become pregnant at an early age. This is consistent with several other studies that show a strong association between low household income and adolescent pregnancy (Cook & Cameron, 2017; Keller, Hilton, & Twumasi-Ankrah, 1999; Singh, Darroch, & Frost, 2001). Majority of the study participants reported coming from poor family backgrounds with little or no financial support. The low level of family income makes these girls vulnerable and exposed to sexual exploitation by men who provide for their needs (Gyesaw & Ankomah, 2013). These type of sexual relations also tend to create gender power disparity as the adolescent girls are unable to negotiate for safer sex leading to pregnancy. As expressed by some of the research participants, they mostly do not have a say whether to use protection or not during sexual intercourse. This is consistent with studies by Yakubu and Salisu (2018) who found that transactional sex leaves younger women powerless.



Low level of family income also limits the amount of financial assistance adolescent mothers can receive from their family and partners (Corcoran, 2016). This means that they are unable to meet their needs and that of their children as most of the mothers are unemployed and mostly rely on support from their relatives or partner.

Related to low family income is also the challenge of parental neglect. As reported by some of the research participants, some parents show little or no concern for the well-being of their children. They see their children especially the girl child as old enough to earn income and support herself. Other parents also have expectations of their adolescent girls to supplement the family income in whatever way they can. With their young age and limited employment opportunities, they end up engaging in transactional sex to be able to provide for their needs (Gyesaw & Ankomah, 2013).

The level of poverty in this area not only expose adolescent girls to sexual exploitation but also adversely affects their general level of educational attainment (Filmer & Pritchett, 1999). The lack of family support towards the education of adolescent girls was a key concern expressed by most of the research participants. Although students in public basic schools (primary and JHS) in Ghana do not pay tuition fees, they are responsible for providing their own school uniforms, books and feeding and other requirements to facilitate their school attendance and learning. Some adolescent girls who are unable to afford these items mostly dropout of school and they might subsequently get pregnant. As argued by Stoner et al. (2019), adolescent girls who stay out of school are at a higher risk of getting pregnant at an early age.

The low educational status of adolescent mothers also adversely affect their income generating ability. Cook and Cameron (2017) argue that adolescent mothers who do not achieve higher educational status are likely to end up in low-income jobs as reported by a number of the primary participants who were into petty trading to enable them provide for their basic necessities. Their gender and low educational status coupled with the high rate of youth unemployment in Ghana limits their access to employment opportunities (Adeniran, Ishaku, & Yusuf, 2020). This traps them in low-income jobs and creates a vicious cycle of poverty and low educational attainment as they do not have sufficient income to support the education of their children. As indicated by Filmer and Pritchett (1999), children from low-income families or communities are most likely not to achieve a higher educational status which invariably ends them with low-income jobs and their children not also able to get the necessary financial support to achieve higher educational status.

Low household income and educational status are not only a determinant of adolescent pregnancy, but they are also a consequence of adolescent pregnancy. The literacy rate in this

area according to the 2010 national census report indicates 13.1 percent of the population in the LMKM have secondary education and only 1.7 percent have had tertiary education (Ghana Statistical Service, 2014). As illustrated by Stoner et al. (2019) most pregnant school girls drop out of school. School dropout emerged as a significant consequence of adolescent pregnancy as reported by most of the primary research participants who dropped out of school as a result of pregnancy. Although some reported receiving support from their parents in nursing their babies whilst they return to school, most of them did not get that kind of support and had to struggle with nursing their babies and going to school. This eventually forced them to drop out of school. Out of the 14 adolescent mothers who participated in the research, only two completed SHS (senior high school), the rest dropped out at the JHS (junior high school) level before or after they got pregnant. This can be seen in the low literacy rate in this area. Singh et al. (2001) however indicate that in high-income countries, some highly educated women between 20-24 years had a child before age 20. This implies that with the right social and economic support, adolescent mothers in low- and middle-income countries would also be able to attain higher educational status.

Poverty and low educational attainment among adolescent mothers indicate the level of economic and social inequality within the Ghanaian society which is a central concern of health promotion (Jackie Green, Tones, Cross, & Woodall, 2019). This deprives underprivileged adolescent girls of their right to education forcing some to engage in risky sexual behaviour leading to pregnancy.

From a developmental perspective, the vicious cycle of poverty and low educational attainment of adolescent mothers also has negative consequences for national development. The abrupt disruption of their education owing to pregnancy limits their productive capacity and the general human resource development of the country (Byrne, Myers, & King, 1991; Chevalier & Viitanen, 2003). Also, their continuous low-income status makes them overly dependent on social support systems (Bissell, 2000). This implies that the government needs to step in with social intervention programmes such as free education and healthcare and subsidies on social amenities such as electricity and water to support poor families and individuals in the society in addition to providing infrastructure and job opportunities.

### **6.2.2 Sexual abuse**

Sexual abuse was also found to be a common occurrence in this area and a cause of adolescent pregnancy. Incidents of child sexual abuse are widespread in Sub-Saharan Africa (Brown et al., 2009; Moore, Awusabo-Asare, Madise, John-Langba, & Kumi-Kyereme, 2007). Some of

the adolescent mothers reported being sexually abused leading to pregnancy. Most of these incidents go unreported owing to shame and fear of the victim being blamed. This reflects the lack of a safe environment that increases the vulnerability of adolescent girls to falling pregnant.

As it emerged from the findings, the society perceives young girls as mostly consenting to sexual advances from men, as such, reports of sexual abuse are trivialised and the victims take the blame. Unreported cases of sexual abuse are also attributed to the close relations victims have with their abusers. Most incidents of sexual abuse are perpetrated by people known to the victim such as family relatives, friends or neighbours. This discourages victims from reporting such incidents for fear of the perpetrator suffering long and harsh prison sentence (Boakye, 2009). Incidents of sexual abuse have both physical and psychological health consequences for the victims. It exposes them to a high risk of sexually transmitted diseases and infections, pregnancy and emotional stress (Brown et al., 2009; Lalor, 2004; Malow, Dévieux, & Lucenko, 2006)

### **6.2.3 Single parenting and lack of role models**

Another social issue associated with adolescent pregnancy is single parenting and the lack of role models for adolescent girls. Single parenting among adolescents is also considered both a risk factor and a consequence of adolescent pregnancy. Klein et al. (2005) and Woodward, Fergusson, and Horwood (2001) suggest that adolescent girls raised by single adolescent mothers are at high risk of becoming adolescent mothers themselves and subsequently single parents. Almost all the adolescent mothers who participated in the research reported being single mothers and either living alone or with their parents. This phenomenon is attributed to the social and cultural norms of this area.

On the social front, single parenting is attributed to some men either denying being responsible for the pregnancy or abandoning the pregnant girl. Within the cultural context, a pregnant girl is not considered to be married to a man until the man performs all the necessary customary marital rites (Yin & Black, 2014). This means that until the man responsible for the pregnancy goes to perform the marital rites, he cannot claim paternity of the child. Children born out of wedlock therefore belong to the girl and her family and the responsibility of taking care of the child falls on the young mother and her family (Atobrah, 2004). This places financial and psychological stress on the young mother as she has no sustainable source of income to provide for necessities such as food, clothing and housing. They end up living and raising their children in their parents' house.

It also emerged from the findings that the social environment in which adolescent girls are raised also influences the likelihood of them becoming adolescent mothers. Miller, Benson, and Galbraith (2001) argue that adolescent girls who are surrounded by family relatives, siblings and friends who are adolescent mothers stand a high risk of becoming adolescent mothers. This level of influence was a worrying concern raised by some of the key informants. Adolescent pregnancy, although morally and culturally unacceptable in the Ghanaian context is almost becoming a normal practice owing to its' high prevalence in the society. As such, adolescent girls who see their family relatives or friends becoming pregnant at an early age feels that it is normal to have a child at that age. This is also a symptom of the general level of educational attainment in this area. As mentioned earlier, this area has a low literacy rate. This implies that adolescent girls in this area might be less motivated to achieve higher education as they lack role models that they can look up to and mentors to motivate and guide them to make positive life choices.

#### **6.2.4 Cultural practice**

The *dipo* rite is an important cultural practice among the Krobos (Adjaye, 1999). It is a rite of passage that is performed during the period of adolescence and the purpose is to introduce girls at puberty into womanhood. Failure to perform the rite before initiation of sex or pregnancy came with severe consequences such as expulsion from the community and limited chance of getting married (Atobrah, 2004). This was therefore seen as a form of cultural check that delayed sexual activities and pregnancy among adolescent girls. In recent times, the practice is seen by most people to have outlived its usefulness as it is being performed for girls at infancy, permitting them to start having sex at any time, which undermines the original purpose of the *dipo* rite (Atobrah, 2004; Langmagne, Tenkorang, Asampong, Osafo, & Bingenheimer, 2018).

Christian belief systems and modern civilization is considered to be undermining the value and performance of the *dipo* rite. The *dipo* rite is perceived to be associated with deities and evil spirits and hence in conflict with Christian beliefs and practices. Most people in the Christian community therefore tend to dissociate themselves from such cultural practices (Langmagne et al., 2018).

The nature and form in which the rite is performed is also seen to be outmoded and uncivilised (Langmagne et al., 2018). In the course of performing the rite, the girls are paraded through the street with their breasts exposed. Girls at puberty who feel embarrassed and shy for being almost naked in public, are reluctant to undergo the rite in recent times. Parents, in an attempt to avoid embarrassment and shame to their family and their daughters, choose to

perform the rite for them when they are very young. With the rite performed for them at such an early age, the assumption is that they are free to have sex (Atobrah, 2004). This perception is widely held by many people and is seen as a deviation from the cultural norm and contributing to the prevalence of adolescent pregnancy in this area.

### **6.2.5 Health-related stressors**

Adolescent mothers also experience health complications associated with pregnancy such as low haemoglobin level that cause anaemia. Studies by de Andrade Cairo, Silva, Bustani, and Marques (2014) shows that there is a generally high risk of anaemia among adolescents due to the increased demand of iron for their growth process. Although anaemia is a common complication among pregnant women (McLean, Cogswell, Egli, Wojdyla, & De Benoist, 2009), iron deficiency during adolescences coupled with pregnancy exposes pregnant adolescent girls to a much higher risk of anaemia (de Vienne, Creveuil, & Dreyfus, 2009). It emerged from the findings that most pregnant adolescents in this area are undernourished and anaemic. This is largely due to the financial constraints they find themselves that makes it difficult for them to afford iron-rich meals to meet their high need for iron. This is consistent with the findings of Orish et al. (2012); Sifakis and Pharmakides (2000) that shows that the common occurrence of anaemia among pregnant women and adolescents is mostly attributed to poor nutrition. Anaemia among pregnant adolescent girls also increase their risk of other complications such as preterm deliveries, low birth weight and perinatal mortality (Rasheed, Koura, Al-Dabal, & Makki, 2008).

### **6.2.6 Abortion**

Inaccessibility to safe abortion services also pose a health risk to pregnant adolescent girls. Abortion in Ghana is legally permitted and provided under the Comprehensive Abortion Care (CAC) system that was adopted in 2007 (Ghana Health Service, 2012). The CAC service “ensures that every woman in Ghana is able to exercise her right as provided by law, to safe abortion and the abortion services provided to women are safe, affordable and accessible” (Ghana Health Service, 2012, p. 16). Most pregnant women are however unable to access this service owing to limited knowledge and awareness of the service among health providers and the general public (Sedgh, 2010).

Aside the lack of knowledge, abortion is perceived as an evil and abominable act and generally unacceptable in almost all Ghanaian societies and cultures (Oduro & Otsin, 2014). The Ghanaian society is also predominately religious and almost all religions teach against

abortion. In some Ghanaian cultures as well, abortion is considered a shameful act and a taboo and any attempt to terminate a pregnancy is believed will invoke curses of death or infertility (Lithur, 2004). The implementation of CAC as a national policy, despite the negative societal attitude to abortion, is to fulfil the country's international obligation of upholding human rights, which include the right of every woman to safe abortion as well as to reduce maternal mortality arising from unsafe abortion.

The continuous negative societal perception of abortion and the limited knowledge of CAC among health workers and the general population, demonstrates the lack of comprehensive stakeholder engagement and community participation in the process leading to the implementation of this health intervention. Abortion is a cultural and morally sensitive issue in Ghana and its acceptability would require a thorough public and stakeholder engagement as well as education programmes aimed at changing people's perceptions.

The societal disapproval and stigma associated with abortion discourage pregnant women of all ages from seeking safe abortion services as expressed by some of the primary participants. As indicated by Aniteye, O'Brien, and Mayhew (2016) abortion care providers and individuals who support women's right to safe abortion also face stigmatization within the society. This implies that information campaign programmes that would create awareness and societal acceptability of women's right to safe abortion services are largely non-existent.

The societal perception of abortion also influence the conduct of medical professionals as some, who are opposed to abortion based on religious and cultural values mostly decline to offer abortion services to pregnant women who seek such services. The right of women to access safe abortion services as prescribed by CAC is therefore restricted by the societal, cultural and religious values and perceptions of abortion.

These societal and cultural restrictions on abortion have far-reaching consequences for the pregnant adolescent girl. She either has to choose between continuing with the pregnancy and giving birth to a baby that she can barely take care of or resort to unsafe means of terminating the pregnancy. Either choices have negative outcomes for the pregnant girl. As it emerged from the research findings, unsafe abortion is a common practice among pregnant adolescent girls in this area. This practice puts them at risk of other health complications such as uterine rupture that can cause death. According to Asamoah, Moussa, Stafström, and Musinguzi (2011), unsafe abortion is one of the leading causes of maternal mortality among unmarried pregnant women in Ghana. As indicated by some of the health professionals, the community health centres are not adequately equipped to handle cases of septic abortion, as such any delay in getting such cases to the main hospital could result in death. The high

prevalence of unsafe abortion in this area and the Ghanaian society at large can be attributed to the stigma associated with abortion which is born out of the negative societal perception of abortion (Lithur, 2004; Sundaram, Juarez, Bankole, & Singh, 2012).

### **6.2.7 Emotional and psychological stress**

Adolescent mothers also experience emotional and psychological stress arising from stigmatization, partner neglect and the financial burden that comes with raising a child (Hodgkinson et al., 2010). Most of the pregnant adolescent girls are not emotionally and psychologically ready to become mothers and their realization that they are pregnant puts them in a state of shock and despair. The emotional stress is also a result of the refusal of some men to take responsibility for the pregnancy leaving the girl with the burden of taking care of the child alone.

Pregnant adolescent girls also face stigmatization within their community. Pregnancy out of wedlock is generally frowned upon in most Ghanaian societies and is considered a shameful act to the girl and her family (Hall et al., 2018). Stigma associated with adolescent pregnancy in the Ghanaian society is that of moral short-comings and promiscuity. Also, in most instances, the adolescent girl is blamed for the cause of her pregnancy, driving some girls into self-isolation to avoid public ridicule. This brings undue emotional and psychological stress to the girl which pushes some girls to attempt to terminate the pregnancy using unsafe means to save herself and her family from the guilt, shame and stigma associated with adolescent pregnancy within the society.

## **6.3 Resources and coping strategies**

### **6.3.1 Access to maternal healthcare**

Availability and access to maternal health care services emerged to be a significant resource that supports the healthcare needs and promote positive health among pregnant adolescents and adolescent mothers. The findings of the study suggest a high utilization of maternal healthcare services among pregnant adolescents and adolescent mothers. This is owing to the availability of healthcare facilities (hospital, health centres and CHPS compounds) in almost all communities within the Lower Manya Krobo Municipality. These health facilities provide antenatal and postnatal care and they also have skilled midwives and delivery facilities that facilitate the provision of safe delivery services. Access to and utilization of maternal healthcare can be attributed to the free maternal healthcare system, the proximity of health

facilities and positive health worker attitude (Johnson et al., 2015; Witter, Adjei, Armar-Klemesu, & Graham, 2009).

Pregnant women and nursing mothers registered on the NHIS in Ghana have free access to maternal healthcare services (Arthur, 2012). This has played a significant role in the high utilization of maternal healthcare services. Free maternal healthcare to a large extent has reduced the financial burden on the adolescent mother and also offers them an opportunity to receive healthcare from a medical professional which encourages them to seek healthcare services (Brugiavini & Pace, 2016).

The proximity of health facilities to adolescent mothers and public education on the benefits of seeking maternal healthcare also emerged to be a significant determinate in the high utilization of maternal healthcare services. This is consistent with the findings of Johnson et al. (2015), which indicates that the proximity of CHPS facilities increase the utilization of skilled birth services. As indicated earlier, almost all communities within the Lower Manya Krobo municipality have a health facility. This has helped in removing the physical barrier that limits access to healthcare and ease the stress of pregnant adolescents and adolescent mothers having to travel long distances to access healthcare.

It also emerged from the findings that, health workers were less judgemental, abusive and generally expressed a positive attitude towards the plight of pregnant adolescents and adolescent mothers. This acted as a positive stimulus that enhanced the health-seeking behaviour of pregnant adolescents and adolescent mothers. Most of the adolescent mothers reported being happy with the services they received at the various health facilities. This created a bond of trust between adolescent mothers and their attending health workers and assured them of their privacy and confidentiality. This is consistent with the findings of Mannava, Durrant, Fisher, Chersich, and Luchters (2015) that shows that positive health worker attitude is a significant factor that motivate pregnant women and mothers to seek maternal healthcare.

The healthcare system in the Lower Manya Krobo municipality serves as a useful resource in providing healthcare services for pregnant adolescents and adolescent mothers. Availability and access to healthcare facilitate the early adoption of antenatal care by pregnant adolescents. Improvement in the provision of and access to maternal health care services in rural Ghanaian communities is a positive health promoting activity that is aimed at providing adequate medical intervention to prevent ill health and reduce infant and maternal mortality (Naidoo & Wills, 2016).



### **6.3.2 Social support**

The social ties that exist between adolescent mothers and their family members, friends and neighbours emerged to be a significant resource for adolescent mothers. The concept of social support explains the tangible and intangible support individuals receive from members of their social network (parents, siblings, family relatives, friends, partners and neighbours) to manage with a stressful situation or event (Sherbourne & Stewart, 1991). The structure of the Ghanaian society is based on communal values and interdependence, which promotes the idea of social support and everyone feels responsible to the other (Akotia & Barimah, 2007).

As it emerged from the findings, adolescent mothers received material and emotional support as well as child care support services<sup>1</sup> from their social ties. This was important in easing the financial burden on them and allowing them to continue with school or learn a vocational skill. It is however important to mention that although some adolescent mothers lack financial support prior to their pregnancy as illustrated earlier, the arrival of a new born draws empathy from well-meaning family relatives, friends, midwives and individuals within the community who reach out to support them in different ways.

Emotional support through motivation and encouragement from friends and schoolteachers was also significant in helping some adolescent mothers deal with the stress of stigma and public judgement during their period of pregnancy. This helped them to overcome the negative outcomes of isolation such as depression and self-harm. This is consistent with the findings of Turner, Grindstaff, and Phillips (1990), which indicate that social support is a significant resource for the psychological adaptation and well-being of adolescent mothers. Studies by Cohen and Wills (1985) and Modie-Moroka (2014) show that individuals that receive psychological and emotional support from significant others have more positive health outcomes compared to those with less or no form of social relationship. From a health promotion perspective, social support/network is an important determinate of positive health and well-being (Eriksson, 2011).

### **6.3.3 Economic opportunities**

The nature of economic activities undertaken in the Lower Manya Krobo area presents an opportunity for adolescent mothers to engage in individual income-generating activities or help with their family business. This area is predominately an agrarian and trading community where the majority of people engage in subsistence and plantation farming and trading. As it

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<sup>1</sup> Child care support services in this context is the support mothers receive from either their parents or family relatives in nursing their babies which is a common practice in Ghana.

emerged from the study findings adolescent mothers who are fortunate to receive start-up capital from their social network (parents or partners), traded in agricultural products such as fruits and vegetables and other non-agricultural products. Adolescent mothers who were able to successfully run their small businesses improved their financial independence and their ability to provide for their needs and that of their children. This implies that with the necessary financial support, adolescent mothers would be able to take advantage of these economic opportunities to improve their income status.

The activities of NGOs also emerged to be a significant resource in providing livelihood training programmes for adolescent mothers who are unable to continue with their education. These NGOs provide vocational skills and training programmes that enhance the capacity of adolescent mothers to engage in other income-generating activities. Enhancing adolescent mothers' skills and income generating capabilities through community-based livelihood empowerment programmes is a significant step to empowering them to be self-reliant and also reduce the likelihood of them engaging in transactional sex for survival as it improves their decision making process, autonomy and provides them with employment opportunities (Leerlooijer et al., 2013).

Economic empowerment programmes for young mothers through vocational training and microfinance support systems is also an important strategy to addressing poverty and issues of gender inequality that mostly compromise the health and well-being of women (Reed, West, Salazar, & Monroy, 2018). This is also important in reducing the national unemployment rate as more young mothers would be skilled to take up employment opportunities.

#### **6.3.4 Supportive educational environment**

The new education policy guidelines provides a supportive environment that encourages pregnant school girls and mothers to continue with their school. This is in line with the guiding principles of the Ottawa Charter that stresses on the creation of supportive environments (WHO, 1986). The research findings indicate that basic and second cycle educational institutions allow pregnant school girls to continue with their education. Other pregnant school girls who wish to take a leave of absence from school during their period of pregnancy are also allowed re-entry after delivery. Most importantly, schoolteachers provide counselling and a friendly environment for affected school girls to protect them against stigmatization, discrimination and mockery that they are likely to be subjected to in the school environment.

The schools also provide special facilities that enable adolescent mothers to nurse their babies whilst they are in school. DeBolt, Pasley, and Kreutzer (1990) indicate that school

factors such as compulsory school attendance and limited encouragement for pregnant school girls and mothers to continue with their education influence their rate of school dropout. With the continuation and re-entry policy, affected school girls are somewhat assured of a safe and friendly study environment where they can receive the necessary support and encouragement they need. This provides equal educational opportunity for pregnant school girls and increase their chances of attaining higher education. The long term implication of this intervention is a reduction in gender inequality in access to education as more school girls who get pregnant would be able to have an education.

Although the current school environment acts as a positive resource to support the educational attainment of pregnant school girls and mothers, their ability to take advantage of it depends largely on the level of social and economic support that they receive. Affected girls who have parents or family relatives that support them financially and in nursing their babies have an opportunity to continue with their school and complete their education. However, affected girls who lack social and economic support are faced with the challenge of managing with both childcare and schooling and they are most likely to drop out of school (Grant & Hallman, 2008).

## **6.4 Interventions**

A number of interventions have been introduced in both the health and education sectors across the country to help reduce the prevalence of pregnancy, especially among school girls. These interventions seek to empower young girls to take control of their sexual and reproductive health by way of creating awareness of their right to reproductive health services, improve their knowledge and use of contraception to prevent unwanted pregnancy. These interventions are backed by the national policy on adolescent reproductive health that support the right of adolescents to sexual and reproductive health information and services (National Population Council, 2000).

### **6.4.1 Health sector interventions**

The recent interventions within the health sector on adolescent reproductive health, promote the use of birth control measures among adolescent girls. The availability, access and use of contraception among adolescents is shown to be one of the effective measures to preventing unwanted pregnancy among adolescent girls (Santelli, Lindberg, Finer, & Singh, 2007). The study findings suggest that modern contraception and birth control measures are now available and easily accessible to adolescent girls at the community health facilities and

hospitals. Utilization of these services is however low among adolescent girls partly due to embarrassment, fear and shyness associated with contraception use which arises from social stigma against premarital sexual activities (Aninanya et al., 2015; Chandra-Mouli et al., 2014).

The societal perception of the side effects of contraceptive also hinder efforts by health workers to create awareness and promote the use of medical contraceptives. The reluctance of adolescent girls to use contraceptives as expressed by some of the primary research participants is an indication of the need to intensify public education on birth control measures especially among adolescent groups in schools and within the community. Adequate knowledge of contraceptives is critical to improving the rate of utilization of contraception (Franklin & Corcoran, 2000).

Special units dedicated to adolescent reproductive health services at the various health facilities and the community reproductive health education programmes create an avenue for out-of-school adolescents to benefit from reproductive health education programmes.

#### **6.4.2 School-based interventions**

Sexual and reproductive health education in schools emerged as one of the interventions implemented in the education sector to educate adolescents on issues of sex and reproductive health. The curricula of basic schools in Ghana have been revised to include topics on adolescent sexual and reproductive health (Awusabo-Asare et al., 2017). Some of the programme components include school health education; education on sex, abstinence and prevention of pregnancy, STI and HIV/AIDS. This is an educational approach to promoting positive health that is aimed at enhancing their knowledge and skills to enable them make informed decisions concerning their health (Naidoo & Wills, 2016). The significance of the school-based intervention is that the school environment serves as an appropriate avenue to educate a large proportion of adolescents on issues of sexual and reproductive health (Speizer et al., 2003).

The current educational intervention creates an environment where adolescents will be comfortable to discuss and ask questions about their sexual and reproductive health issues with their teachers. It also educates adolescents about the physical changes that are occurring in their bodies during the period of adolescence, the increasing desire to be with an opposite sex, the dangers of engaging in unprotected sex and why it is important to abstain from sex as well as education on various types of medical contraceptives. The overall objective of school-based reproductive health education is to reduce risky sexual behaviour among adolescents. This is consistent with studies by Kirby, Laris, and Rolleri (2005) who found that school-based sexual

education has the potential of reducing risky sexual behaviour among adolescents and increase their knowledge of preventing unwanted pregnancy, STI and HIV/AIDS.

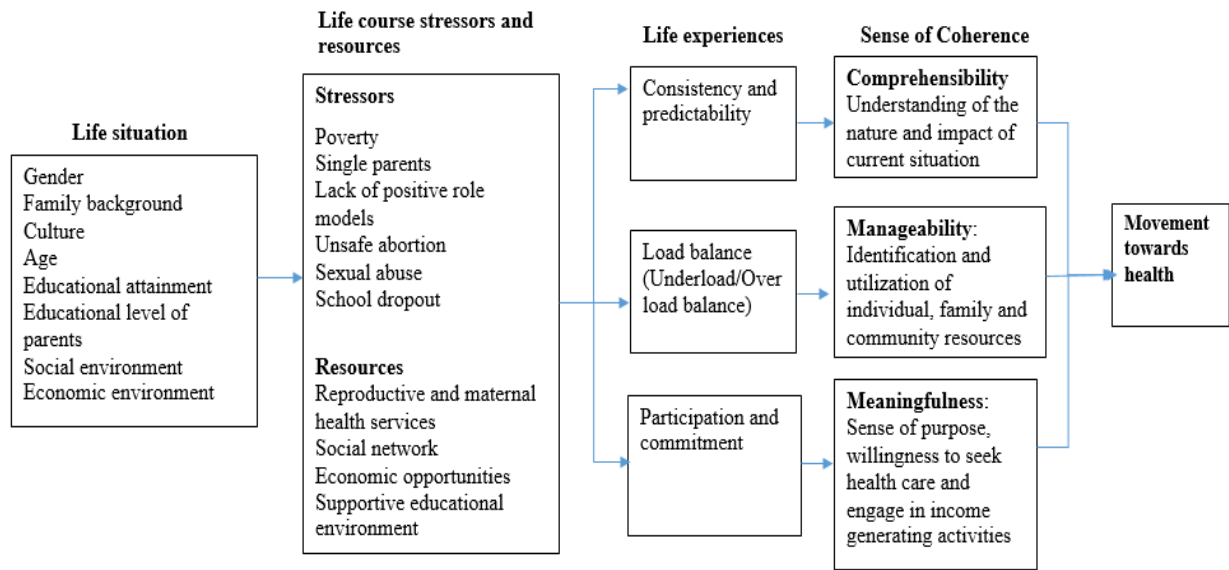
The core content of school-based sexual and reproductive health education among Ghanaian students is largely focused on abstinence, which is perceived as the most effective measure to preventing unwanted pregnancy, STI and HIV infection. The focus on abstinence is a result of the cultural and religious orientation of the Ghanaian society which frowns on premarital sexual activities and issues of sexuality which are considered to be at variance with cultural and religious moral values (Awusabo-Asare et al., 2017). This is indicative of the tension between Ghanaian cultural and religious values on one hand and western liberal views on sexual activities, contraception and sexuality.

The effective implementation of this intervention is however hindered by the lack of regular training and updates for schoolteachers on current issues relating to adolescent sexual and reproductive health. This is largely attributed to the limited funding allocated to this programme. This to a large extent affects teacher's morale and ability to effectively organize out-of-class activities such as school health programmes, which require teachers to mobilize parents and students for health education programmes delivered by health workers at the school premises. This is also consistent with the findings of Awusabo-Asare et al. (2017) that show a lack of training for teachers on topics of sexual and reproductive health.

### **6.5 Theoretical interpretation of research findings**

This section presents a theoretical interpretation of the research findings using the theory of salutogenesis. The theory of salutogenesis integrates a stressor-resource concept and people's sense of coherence (SOC) (Lindström & Eriksson, 2010). The SOC is the most fundamental aspect of the salutogenic theory which represent people's general orientation to life situation, that is, their ability to comprehend the stressors in their life, identify and use resources and their willingness to commit and participate in the recovery process leading to positive health (Lindström & Eriksson, 2005). The stressor-resource component of the theory relative to this research has been extensively discussed in the previous two sections (**see sections 6.1 and 6.2**). The preceding sections discuss the life situation of adolescent mothers and their SOC and how it impacts their ability to identify and use resources to move them towards positive health. A simplified version of the salutogenic model representing the life course of adolescent mothers is presented in figure.3.

**Figure 3. The Salutogenic Model: Life course and experiences of adolescent mothers**



Source: (Mittelmark et al., 2017)

### 6.5.1 Life situation

The life situation concept of the salutogenic theory describes the sociodemographic characteristics of individuals that act as sources of stressors or resources and influence their life experiences (Sagy & Antonovsky, 2000). The life situation of adolescent mothers is dominated by social, cultural and economic factors that significantly shape their life course and well-being. Their age and gender coupled with their low educational status and family income acts as a source of vulnerability that exposes them to the risk of pregnancy. Their cultural practice, *dipo*, can be perceived as both a source of stressor or resource. If performed in its originality, it can serve as a tool to delay their initiation of sex thereby reducing the risk of pregnancy. However, the nature and manner in which it is currently performed is perceived to be encouraging early sexual initiation of adolescent girls leading to pregnancy. The affluence of their parents and other family relatives also serve as a motivation for them to be successful as their parents provide them with the necessary support they need and also act as positive role models to them. However, adolescent mothers from less affluent families as indicated in the study findings, mostly lack the necessary support and guidance they need. A positive social and economic environment provides them with a strong social network, safe environment and financial support. Toxic social and economic environment characterized by limited protection for adolescent girls and poverty, adversely affects the well-being of young girls. As illustrated by Miller (2002), adolescent girls residing in dysfunctional neighbourhoods and low-income

families, being victims of sexual abuse, living with single parents and sexually active or pregnant/parenting siblings are at a high risk of adolescent pregnancy. This holds true for adolescent girls in both high- and low-income countries as expressed by Cook and Cameron (2017).

### **6.5.2 Sense of Coherence**

The SOC component of the salutogenic theory provides a useful insight into how the experiences and coping strategies of adolescent mothers are influenced by their sense of comprehensibility, manageability and meaningfulness of their life situation. Adolescent mothers' SOC represent their global view of their stressful events and is indicative of their level of resilience. The development of their SOC appears to be influenced by their life experiences and perception of available resources. Adolescent mothers' understanding of their life situation, that is, the nature and impact of stressful events and their knowledge of managing such stressful events enable them to identify and use resources. Also, their awareness of these resources enable them to reassert their stressful situation as worthwhile.

#### ***Comprehensibility***

Comprehensibility reflects the extent to which individuals or group of individuals perceive their life situation to be consistent, understandable and predictable (Mittelmark et al., 2017). The study findings indicate a general sense of consistency and predictability of the life situation of adolescent mothers. The life experience of adolescent mothers is characterized by stressors such as poverty, low educational attainment and a dysfunctional social and cultural environment. The prevalence of adolescent pregnancy in this area coupled with the socio-economic background of adolescent mothers and the maternal health information provided by midwives presented adolescent mothers with a clear understanding of the stressor they are confronted with. Stressors of financial constraints, the likelihood of school dropout and the health complications associated with pregnancy were common knowledge and very visible within the society.

From a salutogenic perspective, the consistency of the stressful experiences of adolescent mothers and their knowledge and understanding of the nature of these experiences indicates the level of predictability and their preparedness to identify and mobilize resources to enable them to cope with the stressful situation. Adolescent mothers understanding of their life situation is also demonstrated through their health-seeking behaviour during pregnancy and after delivery. Almost all the adolescent mothers reported having attended ante-natal and post-

natal care to enable them cope with the health complications associated with pregnancy. Other mothers who were determined to avoid future unplanned pregnancy also adopted birth control measures. Also, adolescent mothers' understanding of the financial constraints they are confronted with and the likelihood of them not being able to continue with their education encourage some to enrol in vocational training programmes to acquire new skills or engage in income-generating activities to enable them to support themselves and their children.

### ***Manageability***

Manageability reflects the extent to which people are able to identify, mobilize and use resources at their disposal to enable them to cope with stressful situations (Mittelmark et al., 2017). These resources could either be internal resources such as their personal skills, knowledge or physical asset or it could be external such as their social network or public social services (Lindström & Eriksson, 2009). Adolescent mothers' experience of identifying and utilizing resources is influenced by their load balance, that is, underload/overload balance. The underload balance reflects the situation where their life experiences generate more resources that outweigh the stressors confronting them whereas the overload balance reflects the situation in which their stressful experiences outweigh the available resources (Mittelmark et al., 2017). People who have a good balance between stressors and resources are able to effectively manage their life situation. In the context of this study, although the stressors confronting adolescent mothers appear to outweigh the available resources, most of them were able to maximize the resources available to them to overcome their stressful situation.

Adolescent mothers' ability to manage with their stressful situation was significantly influenced by the available health facilities that provided for their healthcare needs and their social network from which they received financial and emotional support. Also, the general economic environment presented them with a favourable opportunity to engage in income-generating activities and vocational skill acquisition. They also had a friendly school environment that offered them an opportunity to continue with their education.

### ***Meaningfulness***

Meaningfulness reflects the extent to which individuals feel a sense of purpose and meaning in life amid adversity and belief that such adversities are worth the investment and commitment that can eventually lead to a better outcome (Mittelmark et al., 2017). Meaningfulness constitute the emotional component of the SOC that motivates people to want



to overcome their stressful situation. It also requires people to actively participate in the process of identification and utilization of resources to enhance coping.

A significant experience of adolescent mothers that contributed to building their SOC was their level of participation and commitment to shaping their outcome. The hope, belief and desire of adolescent mothers to see their children have a better life and possibly take care of them in their old age gave them a sense of purpose and meaning to continue to thrive. This belief was reinforced by the encouraging messages they receive from their social relationship that gave them hope that all is not lost in life. This motivated them to actively participate in seeking support from their social network and health information and care from the available health facilities as well as identifying income-generating sources to improve their well-being and that of their children.

### ***Movement towards health***

Adolescent mothers' comprehension of their life situation coupled with their ability to identify and use resources at their disposal and their willingness to act to overcome their stressful situations provided them with a strong SOC that moved them toward a better life situation. The adolescent mothers actively utilized maternal health services and birth control measures to manage with pregnancy-related stressors and avoid unplanned pregnancy in the future. Others who could no longer continue with their schooling enrolled in vocational training programmes to enhance their productive capacity whilst some engage in income-generating activities to support themselves. These actions empowered them to take control of their health as they now have a choice if and when they want to have children. It also provided them with financial independence and self-reliance. This is in line with the salutogenic perspective which argues that people who understand the stressors in their life, are able to identify and use resources and are willing to commit their time and energy to overcome the stressful conditions move towards the health spectrum of the health ease/dis-ease continuum (Antonovsky, 1996).

The resources available to adolescent mothers and the various interventions aimed at addressing adolescent pregnancy reflect the core principles of the Ottawa Charter. These principles advocate for the development of personal skills through the provision of education and information and life skills training; the provision of a supportive social environment through the creation of a strong social network; and the reorientation of health services to meet community needs which are considered as prerequisite for promoting positive health (WHO, 1986). As illustrated in the study findings, there are a lot of efforts in the health sector to redesign adolescent healthcare services through the creation of a safe space at health facilities

that is dedicated to providing adolescent reproductive health education and services. NGOs are also actively providing health information and life skills training to adolescents and adolescent mothers. These are important health promoting strategies that creates an empowering environment that could enable adolescents and adolescent mothers to take control of their health (Eriksson & Lindström, 2008).

## **6.6 Recommendations to improve current interventions**

The study identified a number of intervention programmes in both the health and education sectors targeted at reducing adolescent pregnancy as well as some positive resources that support adolescent mothers. The current intervention programmes are mostly focused on behavioural outcomes of adolescents such as delaying sexual initiation, abstinence and contraceptive use as well as improving adolescent's knowledge of sexual and reproductive health. These interventions alone are insufficient to significantly address the issue of adolescent pregnancy.

Adolescent pregnancy appears to be a complex and multifaceted phenomenon that has social, cultural and economic dimensions which requires a comprehensive intervention programme that not only focus on sex education, abstinence and contraceptive use, but also issues in the social and economic environment. Poverty, sexual abuse, single parenting and parental neglect appear to be the underlying factors that are strongly associated with adolescent pregnancy in the Lower Manya Krobo Municipality. There is a need to focus more attention and resources to addressing these issues. Addressing adolescent pregnancy need to go beyond the health and education sector and include other sectors such as employment, security and social welfare. Addressing the issue of sexual abuse will require the involvement of state security agencies to fully implement laws against defilement and other forms of sexual abuse. The Ministry of employment and social welfare also need to provide extra support and employment opportunities targeted at adolescent mothers.

To eradicate poverty and the vulnerability of young girls to sexual exploitation in the long term, it is important to roll out livelihood empowerment programmes such as life skills and vocational training programmes for young people. Government and private sponsored microfinance programmes that would provide start-up capital for young entrepreneurs would empower out-of-school adolescent girls and adolescent mothers and enable them to participate in economic activities. The current livelihood and poverty eradication programme, Livelihood

Empowerment Against Poverty (LEAP)<sup>2</sup> (Debrah, 2013), can be redesigned to include families that do not meet the current eligibility criteria but are living in abject poverty. This will create a more equitable society where the majority of people would have skills and knowledge to engage in income-generating activities thereby providing them with sufficient resources to support themselves.

Incidents of sexual abuse against young girls seem to be rampant in this area and the less chance of perpetrators being caught and punished creates an environment where young girls are continuously being sexually abused. Sexual abuse is an issue of human rights which needs to be tackled at the community and national level. Community interventions requires a wider stakeholder approach that should include parents, teachers, health workers, traditional and religious leaders to create awareness of the risk and consequences of sexual abuse and the need to prevent it. This could take the form of mass media campaign and community education programmes against sexual abuse and also to influence cultural and social norms. Community participation and stakeholder engagement is an effective health promoting activity to ensure the acceptability of public health intervention programmes (Jackie Green et al., 2019). There is also the need to create a supportive environment where victims of sexual abuse can receive counselling and help as well as being able to get justice. At the national level, efforts need to be made to enforce laws against sexual abuse.

## **6.7 Study limitation**

As a qualitative study, the research findings and interpretation are a subjective view of the experiences of research participants and do not represent a comprehensive view and understanding of the subject under study. Transferability of the research outcome therefore needs to be critically considered. Although the selected study sample was adequate in answering the research questions, parents of adolescent mothers and traditional leaders were not included in the study. Their views could have shed more light on parenting styles and cultural practices that influence the phenomenon of adolescent pregnancy in this area. This notwithstanding, most of the key informants are parents and natives of the Krobo land. They therefore had in-depth knowledge and experience of the Krobo culture and were able to contribute valuable information on issues of parenting and cultural practices in this area.

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<sup>2</sup> LEAP is a cash transfer programme for extremely poor and vulnerable households, with a household member in one of the following categories; orphaned and vulnerable children, persons with severe disability without any productive capacity and elderly persons who are 65 years and above.

Another limitation was the wide age gap between the primary participants. This reflect a greater difference in maturity and experience among the primary participants

Data collection for this study was conducted using only one-on-one in-depth interviews with research participants. Plans to conduct FGD with the primary research participants were unsuccessful due to the location of the interviews. As indicated earlier, most of the interviews with the primary research participants were conducted at the health facilities which is not a convenient place to conduct an FDG. It was also difficult to contact them to arrange for an FGD as most of them did not have personal mobile phones. This limitation was however mitigated by the relatively large sample size that allowed for cross-referencing and corroboration of information gathered from the primary research participants. Also, attempts to access policy documents on adolescent reproductive health policies and programmes from the municipal health directorate proved futile. The lack of access to these documents affected the researcher's ability to identify the full range of adolescent reproductive health intervention programmes that are currently in place. However, key informants at the health and education sector provided an overview of some of the programmes that they are engaged in.

Finally, the gender difference between the researcher and the primary research participants influenced the nature and type of questions that were asked. As a male researcher, it was difficult to ask certain gender sensitive questions such as whether they had multiple sex partners prior to their pregnancy.

## **6.8 Recommendations for further research**

This study was focused on exploring the experiences and coping strategies of adolescent mothers in the LMKM. The study findings identified other pertinent issues that significantly affect adolescent girls in this area. Issues of sexual abuse of adolescent girls and their risk of HIV infection was a recurring theme in this study. Further studies are therefore required to unravel the magnitude and effect of these issues on the health and well-being of adolescent girls in this area. Further research is also required to evaluate the effectiveness and impact of adolescent reproductive health intervention programmes. This is necessary to identify which of the programme components are working and which aspects need to be readjusted as well as to also guide the design and implementation of future programmes.

## Chapter 7. Conclusion

This study set out to explore the experiences and coping strategies of adolescent mothers as well as the interventions that are aimed at addressing the phenomenon of adolescent pregnancy in the LMKM. The study was guided by Antonovsky's theory of salutogenesis that focuses on resources that enable people to have positive health and their SOC which strengthens their ability to identify and use resources to cope with the stressors in their lives. The research findings were therefore organised to reflect the stressors confronting adolescent mothers, the resources available to them and how their SOC enabled them to identify, mobilize and use these resources. The study further identified intervention programmes that seek to influence the sexual behaviour of adolescents and reduce their risk of pregnancy.

The stressors confronting adolescent mothers as identified in this study are situated within the social, cultural and economic context. Issues of poverty; school dropout; sexual abuse; parental neglect; lack of role models; single parenting; societal perception of abortion and adolescent pregnancy; and health complications associated with pregnancy were identified as both risk factors associated with adolescent pregnancy and stressors that negatively impact the life course of adolescent mothers.

From a health promotion and salutogenic perspective on health inequality, these stressors are a reflection of the unequal distribution of wealth in the society which adversely affects the health and well-being of adolescent girls and mothers. As shown in the research findings, adolescent girls from poor and deprived homes stand a high risk of school dropout and are more vulnerable to sexual exploitation leading to pregnancy. Also, the rights of pregnant adolescent girls to safe abortion and contraception is undermined by the cultural, religious and moral values against abortion. This leaves pregnant adolescent girls with limited choices regarding whether to abort or continue with a pregnancy. This, coupled with the uneven distribution of wealth, disempowers adolescent girls to take control of their health. The victim-blaming approach is also widespread in the Ghanaian society. Adolescent girls who fall victim to pregnancy or sexual abuse are mostly blamed for inviting such misfortunes unto themselves. This discourages victims from being able to speak out and seek help.

Amid these stressful situations, pregnant adolescent girls' and mothers' social relationships, their access to reproductive and maternal health care services, a friendly school environment and their personal motivation to engage in income-generating activities proved to be very useful resources that enabled them to thrive. These resources assisted them to meet their financial, emotional and healthcare needs. Understanding the coping strategies that enable

adolescent mothers to overcome the stressful situations in their lives is important for discussions on the social support systems that are designed for adolescent mothers. The interventions that sought to educate adolescent girls and mothers on reproductive health as well as promote the use of contraception enhanced their knowledge and helped them to prevent future unwanted pregnancy.

The findings of this study have contributed to the scientific literature by unravelling the complex web of social, cultural and economic factors that are associated with adolescent pregnancy and affect the well-being of adolescent mothers as well as the resources that enable them to thrive. The interpretation of the research findings using the theory of salutogenesis has also provided useful insight into how SOC of adolescent mothers in the LMKM enhance their ability to identify and use resources at their disposal to move towards good health and well-being. The study also discussed the significance of expending resources to addressing the underlying socioeconomic issues that give rise to adolescent pregnancy. Some of the challenges that hinder the success of current adolescent reproductive health intervention programmes were also highlighted in this study.

## References

- Adeniran, A., Ishaku, J., & Yusuf, A. (2020). Youth Employment and Labor Market Vulnerability in Ghana: Aggregate Trends and Determinants. In M. L. McLean (Ed.), *West African Youth Challenges and Opportunity Pathways* (pp. 187-211): Springer.
- Adjaye, J. K. (1999). Dangerous crossroads: liminality and contested meaning in Krobo (Ghana) dipo girls' initiation. *Journal of African Cultural Studies*, 12(1), 5-26. doi:10.1080/13696819908717837
- Akotia, C. S., & Barimah, K. B. (2007). History of community psychology in Ghana. In S. M. Reich, M. Riemer, I. Prilleltensky, & M. Montero (Eds.), *International Community Psychology* (pp. 407-414): Springer.
- Alcock, G. A., More, N. S., Patil, S., Porel, M., Vaidya, L., & Osrin, D. (2009). Community-based health programmes: role perceptions and experiences of female peer facilitators in Mumbai's urban slums. *Health Education Research*, 24(6), 957-966. doi:10.1093/her/cyp038
- Allen, J. P., Philliber, S., & Hoggson, N. (1990). School-based prevention of teen-age pregnancy and school dropout: process evaluation of the national replication of the Teen Outreach Program. *American Journal of Community Psychology*, 18(4), 505-524. doi:10.1007/BF00938057
- Aninanya, G. A., Debpuur, C. Y., Awine, T., Williams, J. E., Hodgson, A., & Howard, N. (2015). Effects of an adolescent sexual and reproductive health intervention on health service usage by young people in northern Ghana: a community-randomised trial. *PLoS ONE*, 10(4), e0125267. doi:10.1371/journal.pone.0125267
- Aniteye, P., O'Brien, B., & Mayhew, S. H. (2016). Stigmatized by association: challenges for abortion service providers in Ghana. *BMC health services research*, 16(1), 486. doi:10.1186/s12913-016-1733-7
- Antonovsky, A. (1996). The salutogenic model as a theory to guide health promotion. *Health promotion international*, 11(1), 11-18. doi:10.1093/heapro/11.1.11
- Arthur, E. (2012). Wealth and antenatal care use: implications for maternal health care utilisation in Ghana. *Health economics review*, 2(1), 14. doi:10.1186/2191-1991-2-14
- Asamoah, B. O., Moussa, K. M., Stafström, M., & Musinguzi, G. (2011). Distribution of causes of maternal mortality among different socio-demographic groups in Ghana; a descriptive study. *BMC public health*, 11(1), 159. doi:10.1186/1471-2458-11-159
- Atobrah, D. (2004). Children of dead mothers and 'unknown'fathers'. *Institute of African Studies Research Review*, 2004(Supplement 6), 59-75. [https://journals.co.za/docserver/fulltext/inafstud/2004/sup-6/inafstud\\_supp16\\_a4.pdf?expires=1586970760&id=id&acname=guest&checksum=7A8004D9A7E99D3D8CBDE24BDD98C8BC](https://journals.co.za/docserver/fulltext/inafstud/2004/sup-6/inafstud_supp16_a4.pdf?expires=1586970760&id=id&acname=guest&checksum=7A8004D9A7E99D3D8CBDE24BDD98C8BC)
- Awusabo-Asare, K., Stillman, M., Keogh, S., Doku, D. T., Kumi-Kyereme, A., Esia-Donkoh, K., & Bankole, A. (2017). From paper to practice: Sexuality education policies and their implementation in Ghana. *New York: Guttmacher Institute*. <https://www.npc.gov.gh/wp-content/uploads/2019/10/sexuality-education-ghana-report.pdf>
- Bankole, A., Biddlecom, A., Guiella, G., Singh, S., & Zulu, E. (2007). Sexual behavior, knowledge and information sources of very young adolescents in four sub-Saharan African countries. *African journal of reproductive health*, 11(3), 28. <https://search-proquest-com.pva.uib.no/docview/218958702?accountid=8579>
- Bazeley, P., & Jackson, K. (2013). *Qualitative data analysis with NVivo* (2nd ed.). London: Sage Publications Limited.
- Bearinger, L. H., Sieving, R. E., Ferguson, J., & Sharma, V. (2007). Global perspectives on the sexual and reproductive health of adolescents: patterns, prevention, and potential. *The Lancet*, 369(9568), 1220-1231. doi:10.1016/S0140-6736(07)60367-5

- Bennett, S. E., & Assefi, N. P. (2005). School-based teenage pregnancy prevention programs: A systematic review of randomized controlled trials. *Journal of Adolescent Health, 36*(1), 72-81. doi:10.1016/j.jadohealth.2003.11.097
- Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative research, 15*(2), 219-234. doi:10.1177/1468794112468475
- Bissell, M. (2000). Socio-economic outcomes of teen pregnancy and parenthood: A review of the literature. *The Canadian journal of human sexuality, 9*(3), 191. [https://www.researchgate.net/profile/Mary\\_Bissell/publication/234643478\\_Socio-Economic\\_Outcomes\\_of\\_Teen\\_Pregnancy\\_and\\_Parenthood\\_A\\_Review\\_of\\_the\\_Literature/links/54e361b20cf2be54da85c3e7.pdf](https://www.researchgate.net/profile/Mary_Bissell/publication/234643478_Socio-Economic_Outcomes_of_Teen_Pregnancy_and_Parenthood_A_Review_of_the_Literature/links/54e361b20cf2be54da85c3e7.pdf)
- Boakye, K. E. (2009). Culture and nondisclosure of child sexual abuse in Ghana: A theoretical and empirical exploration. *Law & Social Inquiry, 34*(4), 951-979. doi:10.1111/j.1747-4469.2009.01170.x
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. doi:10.1191/1478088706qp063oa
- Brieger, W. R., Delano, G. E., Lane, C. G., Oladepo, O., & Oyediran, K. A. (2001). West African Youth Initiative: outcome of a reproductive health education program. *Journal of Adolescent Health, 29*(6), 436-446. doi:10.1016/S1054-139X(01)00264-6
- Brown, D. W., Riley, L., Butchart, A., Meddings, D. R., Kann, L., & Harvey, A. P. (2009). Exposure to physical and sexual violence and adverse health behaviours in African children: results from the Global School-based Student Health Survey. *Bulletin of the World Health Organization, 87*, 447-455. doi:10.1590/S0042-96862009000600013
- Brugiavini, A., & Pace, N. (2016). Extending health insurance in Ghana: effects of the National Health Insurance Scheme on maternity care. *Health economics review, 6*(1), 7. doi:10.1186/s13561-016-0083-9
- Byrne, D. M., Myers, S. C., & King, R. H. (1991). Short term labour market consequences of teenage pregnancy. *Applied Economics, 23*(12), 1819-1827. doi:10.1080/00036849100000171
- Card, J. J. (1999). Teen Pregnancy Prevention: Do Any Programs Work? *Annual review of public health, 20*(1), 257-285. doi:10.1146/annurev.publhealth.20.1.257
- Carter, S. M., & Little, M. (2007). Justifying knowledge, justifying method, taking action: Epistemologies, methodologies, and methods in qualitative research. *Qualitative health research, 17*(10), 1316-1328. doi:10.1177/1049732307306927
- Chandra-Mouli, V., McCarragher, D. R., Phillips, S. J., Williamson, N. E., & Hainsworth, G. (2014). Contraception for adolescents in low and middle income countries: needs, barriers, and access. *Reproductive Health, 11*(1). doi:10.1186/1742-4755-11-1
- Chevalier, A., & Viitanen, T. K. (2003). The long-run labour market consequences of teenage motherhood in Britain. *Journal of population economics, 16*(2), 323-343. doi:10.1007/s001480200125
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological bulletin, 98*(2), 310. doi:10.1037/0033-2909.98.2.310
- Cook, S. M. C., & Cameron, S. T. (2017). Social issues of teenage pregnancy. *Obstetrics, Gynaecology & Reproductive Medicine, 27*(11), 327-332. doi:10.1016/j.ogrm.2017.08.005
- Corcoran, J. (2016). Teenage Pregnancy and Mental Health. *Societies, 6*(3), 21. doi:10.3390/soc6030021
- Creswell, J. W. (2007). *Qualitative inquiry & research design : choosing among five approaches* (2nd ed. ed.). Thousand Oaks, Calif: Sage.
- Creswell, J. W. (2014). *Research designs: Qualitative, quantitative, and mixed methods approaches* (4th ed.): SAGE.
- David, M., & Sutton, C. D. (2011). *Social research: An introduction* (2nd ed.). London: Sage.



- de Andrade Cairo, R. C., Silva, L. R., Bustani, N. C., & Marques, C. D. F. (2014). Iron deficiency anemia in adolescents; a literature review. *Nutrición hospitalaria*, 29(6), 1240-1249. <https://www.redalyc.org/pdf/3092/309231671004.pdf>
- de Vienne, C. M., Creveuil, C., & Dreyfus, M. (2009). Does young maternal age increase the risk of adverse obstetric, fetal and neonatal outcomes: a cohort study. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 147(2), 151-156. doi:10.1016/j.ejogrb.2009.08.006
- DeBolt, M. E., Pasley, B. K., & Kreutzer, J. (1990). Factors Affecting the Probability of School Dropout. *Journal of Adolescent Research*, 5(2), 190-205. doi:10.1177/074355489052006
- Debrah, E. (2013). Alleviating poverty in Ghana: the case of livelihood empowerment against poverty (LEAP). *Africa Today*, 59(4), 41-67. [https://www.jstor.org/stable/pdf/10.2979/africatoday.59.4.41.pdf?casa\\_token=9ZRuwWrPCu0AAAAA:INcpOiNjXGp3hOJKlDsDmYe8fOq4NLx2D1v1EWtzpEoLYwfKyCPcYBRZ\\_7XkJRbakhMO9QKJmjn\\_QMP6Q5nw79Bd30-kpHPZKcbmhTijxnr3oCjRSN8](https://www.jstor.org/stable/pdf/10.2979/africatoday.59.4.41.pdf?casa_token=9ZRuwWrPCu0AAAAA:INcpOiNjXGp3hOJKlDsDmYe8fOq4NLx2D1v1EWtzpEoLYwfKyCPcYBRZ_7XkJRbakhMO9QKJmjn_QMP6Q5nw79Bd30-kpHPZKcbmhTijxnr3oCjRSN8)
- Eriksson, M. (2011). Social capital and health—implications for health promotion. *Global health action*, 4(1), 5611. doi:10.3402/gha.v4i0.5611
- Eriksson, M., & Lindström, B. (2008). A salutogenic interpretation of the Ottawa Charter. *Health promotion international*, 23(2), 190-199. doi:10.1093/heapro/dan014
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, 5(1), 1-4. doi:10.11648/j.ajtas.20160501.11
- Farber, N. B. (2009). *Adolescent pregnancy: policy and prevention services* (2nd ed.): United States: Springer Publishing Company.
- Fatusi, A. O., & Hindin, M. J. (2010). Adolescents and youth in developing countries: Health and development issues in context. *Journal of adolescence*, 33(4), 499-508. doi:10.1016/j.adolescence.2010.05.019
- Filmer, D., & Pritchett, L. (1999). The effect of household wealth on educational attainment: evidence from 35 countries. *Population and development review*, 25(1), 85-120. doi:10.1111/j.1728-4457.1999.00085.x
- Franklin, C., & Corcoran, J. (2000). Preventing adolescent pregnancy: A review of programs and practices. *Social Work*, 45(1), 40-52. doi:10.1093/sw/45.1.40
- Ganchimeg, T., Ota, E., Morisaki, N., Laopaiboon, M., Lumbiganon, P., Zhang, J., . . . Mori, R. (2014). Pregnancy and childbirth outcomes among adolescent mothers: a World Health Organization multicountry study. *BJOG: An International Journal of Obstetrics & Gynaecology*, 121, 40-48. doi:10.1111/1471-0528.12630
- Gasson, S. (2004). Rigor in grounded theory research: An interpretive perspective on generating theory from qualitative field studies. *The handbook of information systems research*, 79-102. doi:10.4018/978-1-59140-144-5.ch006
- Geronimus, A., & Korenman, S. (1992). The Socioeconomic Consequences of Teen Childbearing Reconsidered. *The Quarterly Journal of Economics*, 107(4), 1187. doi:10.2307/2118385
- Ghana AIDS Commission. (2019). *National HIV and AIDS Policy: Universal Access to HIV Prevention, Treatment and Care Services towards Ending AIDS as a Public Health Threat*. Ghana Retrieved from [https://www.ghanaims.gov.gh/mcadmin/Uploads/nationalHIVandAIDSPolicy\(2\).pdf](https://www.ghanaims.gov.gh/mcadmin/Uploads/nationalHIVandAIDSPolicy(2).pdf).
- Ghana Health Service. (2012). *Prevention & Management of Unsafe Abortion: Comprehensive Abortion Care Services Standards and Protocols*. Retrieved from <https://abortion-policies.srhr.org/documents/countries/02-Ghana-Comprehensive-Abortion-Care-Services-Standards-and-Protocols-Ghana-Health-Service-2012.pdf>.
- Ghana Statistical Service. (2014). *2010 Population and housing Census, District Analytical Report, Lower Manya Krobo Municipality*. Ghana Retrieved from [http://www2.statsghana.gov.gh/docfiles/2010\\_District\\_Report/Eastern/UPPER%20MANYA%20KROBO.pdf](http://www2.statsghana.gov.gh/docfiles/2010_District_Report/Eastern/UPPER%20MANYA%20KROBO.pdf).

- Ghanaweb. (2014). Eastern Region records 13000 plus pregnant students. Retrieved from <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Eastern-Region-records-13000-plus-pregnant-students-337418>
- Gibbs, C. M., Wendt, A., Peters, S., & Hogue, C. J. (2012). The Impact of Early Age at First Childbirth on Maternal and Infant Health. *Paediatric and Perinatal Epidemiology*, 26(1), 259-284. doi:10.1111/j.1365-3016.2012.01290.x
- Gigante, D., de França, G., De Lucia Rolfe, E., Lima, N., Dos Santos Motta, J., Gonçalves, H., . . . Ong, K. (2019). Adolescent parenthood associated with adverse socio-economic outcomes at age 30 years in women and men of the Pelotas, Brazil: 1982 Birth Cohort Study. *An International Journal of Obstetrics and Gynaecology*, 126(3), 360-367. doi:10.1111/1471-0528.15428
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse education today*, 24(2), 105-112. doi:10.1016/j.nedt.2003.10.001
- Grant, M. J., & Hallman, K. K. (2008). Pregnancy-related school dropout and prior school performance in KwaZulu-Natal, South Africa. *Studies in family planning*, 39(4), 369-382. doi:10.1111/j.1728-4465.2008.00181.x
- Green, J., & Thorogood, N. (2014). *Qualitative methods for health research* (3rd ed.). Los Angeles, Calif: Sage.
- Green, J., Tones, K., Cross, R., & Woodall, J. (2019). *Health promotion : planning & strategies* (4th ed.). Los Angeles, Calif: Sage.
- Greene, L. W., Smith, M. S., & Peters, S. R. (1995). " I Have a Future" Comprehensive Adolescent Health Promotion: Cultural Considerations in Program Implementation and Design. *Journal of Health Care for the Poor and Underserved*, 6(2), 267-281. doi:10.1353/hpu.2010.0636
- Grønvik, T., & Sandøy, I. F. (2018). Complications associated with adolescent childbearing in Sub-Saharan Africa: A systematic literature review and meta-analysis. *PLoS ONE*, 13(9), e0204327. doi:10.1371/journal.pone.0204327
- Gyesaw, N. Y. K., & Ankomah, A. (2013). Experiences of pregnancy and motherhood among teenage mothers in a suburb of Accra, Ghana: a qualitative study. *International journal of women's health*, 5, 773. doi:10.2147/IJWH.S51528
- Haberland, N., & Rogow, D. (2015). Sexuality education: emerging trends in evidence and practice. *Journal of Adolescent Health*, 56(1), S15-S21. doi:10.1016/j.jadohealth.2014.08.013
- Hall, K. S., Manu, A., Morhe, E., Dalton, V. K., Challa, S., Loll, D., . . . Harris, L. H. (2018). Bad girl and unmet family planning need among Sub-Saharan African adolescents: the role of sexual and reproductive health stigma. *Qualitative research in medicine & healthcare*, 2(1), 55. doi:10.4081/qrmh.2018.7062
- Head, B. W. (2007). Community engagement: participation on whose terms? *Australian Journal of Political Science*, 42(3), 441-454. doi:10.1080/10361140701513570
- Hervish, A., & Feldman-Jacobs, C. (2011). *Who speaks for me? Ending child marriage*. Washington DC: population reference bureau Retrieved from <https://www.prb.org/wp-content/uploads/2013/11/ending-child-marriage.pdf>.
- Hindin, M. J., & Fatusi, A. O. (2009). Adolescent sexual and reproductive health in developing countries: an overview of trends and interventions. *International perspectives on sexual and reproductive health*, 35(2), 58-62. <https://search-proquest-com.pva.uib.no/docview/235918682/fulltextPDF/F1E267F328674976PQ/1?accountid=8579>
- Hodgkinson, S. C., Colantuoni, E., Roberts, D., Berg-Cross, L., & Belcher, H. M. E. (2010). Depressive Symptoms and Birth Outcomes among Pregnant Teenagers. *Journal of Pediatric and Adolescent Gynecology*, 23(1), 16-22. doi:10.1016/j.jpjag.2009.04.006
- Holness, N. (2015). A global perspective on adolescent pregnancy. *International journal of nursing practice*, 21(5), 677-681. doi:10.1111/ijn.12278

- Ilboudo, P. G., Somda, S. M., & Sundby, J. (2014). Key determinants of induced abortion in women seeking postabortion care in hospital facilities in Ouagadougou, Burkina Faso. *International journal of women's health*, 6(1), 565. doi:10.2147/IJWH.S60709
- Joffe, H., & Yardley, L. (2004). Content and thematic analysis. In D. F. Marks & L. Yardley (Eds.), *Research methods for clinical and health psychology* (pp. 56-68). doi:<https://dx.doi.org/10.4135/9781849209793>
- Johnson, F. A., Frempong-Ainguah, F., Matthews, Z., Harfoot, A. J., Nyarko, P., Baschieri, A., . . . Atkinson, P. M. (2015). Evaluating the impact of the community-based health planning and services initiative on uptake of skilled birth care in Ghana. *PLoS ONE*, 10(3). doi:10.1371/journal.pone.0120556
- Jootun, D., McGhee, G., & Marland, G. R. (2009). Reflexivity: promoting rigour in qualitative research. *Nursing Standard (through 2013)*, 23(23), 42. <https://search.proquest.com/docview/219890344/fulltextPDF/4CC6A33DAF404DCDPQ/1?accountid=8579>
- Kanwetuu, V. d. P., Mokulogo, R. K., & Azumah, F. D. (2018). Understanding Adolescents' Sexual Behaviour in Ghana: Information Sources and Their Effects. *Sexuality and culture*, 22(3), 942-961. doi:10.1007/s12119-018-9509-3
- Kassa, G. M., Arowojolu, A., Odukogbe, A., & Yalaw, A. W. (2018). Prevalence and determinants of adolescent pregnancy in Africa: a systematic review and Meta-analysis. *Reproductive Health*, 15(1), 195. doi:10.1186/s12978-018-0640-2
- Kawakita, T., Wilson, K., Grantz, K. L., Landy, H. J., Huang, C.-C., & Gomez-Lobo, V. (2016). Adverse Maternal and Neonatal Outcomes in Adolescent Pregnancy. *Journal of Pediatric and Adolescent Gynecology*, 29(2), 130-136. doi:10.1016/j.jpag.2015.08.006
- Kaye, D. K. (2008). Negotiating the transition from adolescence to motherhood: Coping with prenatal and parenting stress in teenage mothers in Mulago hospital, Uganda. *BMC public health*, 8(1), 83. doi:10.1186/1471-2458-8-83
- Keller, E., Hilton, D. B., & Twumasi-Ankrah, K. (1999). Teenage pregnancy and motherhood in a Ghanaian community. *Journal of social Development in Africa*, 14, 69-84.
- Kirby, D. (2001). Emerging answers: Research findings on programs to reduce teen pregnancy (summary). *American Journal of Health Education*, 32(6), 348-355. doi:10.1080/19325037.2001.10603497
- Kirby, D., & Coyle, K. (1997). Youth development programs. *Children and Youth Services Review*, 19(5-6), 437-454. doi:10.1016/S0190-7409(97)00026-1
- Kirby, D., Laris, B., & Roller, L. (Eds.). (2005). *Impact of sex and HIV education programs on sexual behaviors of youth in developing and developed countries*: Family Health International, YouthNet Program.
- Klein, J., Barratt, M., Blythe, M., & Diaz, A. (2005). Adolescent Pregnancy: Current Trends and Issues. *Pediatrics*, 116(1), 281-286. <https://pediatrics.aappublications.org/content/pediatrics/116/1/281.full.pdf>
- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. Delhi: New Age International.
- Lalor, K. (2004). Child sexual abuse in sub-Saharan Africa: a literature review. *Child abuse & neglect*, 28(4), 439-460. doi:10.1016/j.chiabu.2003.07.005
- Langmagne, S., Tenkorang, E. Y., Asampong, E., Osafo, J., & Bingenheimer, J. B. (2018). Approaches to regulating adolescent sexual behavior in Ghana: qualitative evidence from Somanya and Adidome. *Archives of sexual behavior*, 47(6), 1779-1790. doi:10.1007/s10508-018-1161-3
- Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. New York: Guilford Publications.
- Leerlooijer, J. N., Bos, A. E., Ruiters, R. A., Van Reeuwijk, M. A., Rijdsdijk, L. E., Nshakira, N., & Kok, G. (2013). Qualitative evaluation of the Teenage Mothers Project in Uganda: a community-based empowerment intervention for unmarried teenage mothers. *BMC public health*, 13(1), 816. doi:10.1186/1471-2458-13-816

- Lindström, B., & Eriksson, M. (2005). Salutogenesis. *Journal of Epidemiology & Community Health*, 59(6), 440-442. doi:10.1136/jech.2005.034777
- Lindström, B., & Eriksson, M. (2009). The salutogenic approach to the making of HiAP/healthy public policy: illustrated by a case study. *Global Health Promotion*, 16(1), 17-28. doi:10.1177/1757975908100747
- Lindström, B., & Eriksson, M. (2010). A salutogenic approach to tackling health inequalities. In A. D. Morgan, Maggie; Ziglio, Erio; Lindström, Bengt; Eriksson, Monica (Ed.), *Health assets in a global context: theory, methods, action* (pp. 17-39): Springer. doi:10.1007/978-1-4419-5921-8\_2
- Lithur, N. O. (2004). Destigmatising abortion: expanding community awareness of abortion as a reproductive health issue in Ghana. *African journal of reproductive health*, 70-74. [https://www.jstor.org/stable/pdf/3583308.pdf?casa\\_token=0EI10Q9ggEwAAAAA:1MEDZlw68\\_Jr4VhSyMTzc9TvAQOJ\\_t5Cgf\\_mUaUrDhwIAGIRD0gKj4t3fb1676wsh741xLINrfCS6ARFcsqiZpll5pQyBMLYrj6cxpmhGUZKmfJhGQ](https://www.jstor.org/stable/pdf/3583308.pdf?casa_token=0EI10Q9ggEwAAAAA:1MEDZlw68_Jr4VhSyMTzc9TvAQOJ_t5Cgf_mUaUrDhwIAGIRD0gKj4t3fb1676wsh741xLINrfCS6ARFcsqiZpll5pQyBMLYrj6cxpmhGUZKmfJhGQ)
- Lloyd, C. B., & Mensch, B. S. (2008). Marriage and childbirth as factors in dropping out from school: an analysis of DHS data from sub-Saharan Africa. *Population Studies*, 62(1), 1-13. doi:10.1080/00324720701810840
- Malow, R., Dévieux, J., & Lucenko, B. A. (2006). History of childhood sexual abuse as a risk factor for HIV risk behavior. *Journal of Trauma Practice*, 5(3), 13-32. [https://www.tandfonline.com/doi/pdf/10.1300/J189v05n03\\_02?casa\\_token=N08hvr7zv9cA AAAA:M6bRxm6nkr\\_Qp-NF\\_AzBvctoVPwqQIsRE3pRkMT6-YJAcTkZvGEmHRt0WLnmWv43WF8zeZqLnzGw](https://www.tandfonline.com/doi/pdf/10.1300/J189v05n03_02?casa_token=N08hvr7zv9cA AAAA:M6bRxm6nkr_Qp-NF_AzBvctoVPwqQIsRE3pRkMT6-YJAcTkZvGEmHRt0WLnmWv43WF8zeZqLnzGw)
- Mann, R. J., Abercrombie, P. D., DeJoseph, J., Norbeck, J. S., & Smith, R. T. (1999). The Personal Experience of Pregnancy for African-American Women. *Journal of Transcultural Nursing*, 10(4), 297-305. doi:10.1177/104365969901000408
- Mannava, P., Durrant, K., Fisher, J., Chersich, M., & Luchters, S. (2015). Attitudes and behaviours of maternal health care providers in interactions with clients: a systematic review. *Globalization and health*, 11(1), 36. doi:10.1186/s12992-015-0117-9
- McCabe, J. L., & Holmes, D. (2009). Reflexivity, critical qualitative research and emancipation: A Foucauldian perspective. *Journal of advanced nursing*, 65(7), 1518-1526. doi:10.1111/j.1365-2648.2009.04978.x
- McLean, E., Cogswell, M., Egli, I., Wojdyla, D., & De Benoist, B. (2009). Worldwide prevalence of anaemia, WHO vitamin and mineral nutrition information system, 1993–2005. *Public health nutrition*, 12(4), 444-454. doi:10.1017/S1368980008002401
- Milburn, K. (1995). A critical review of peer education with young people with special reference to sexual health. *Health Education Research*, 10(4), 407-420. doi:10.1093/her/10.4.407
- Miller, B. C. (2002). Family influences on adolescent sexual and contraceptive behavior. *Journal of sex research*, 39(1), 22-26. doi:10.1080/00224490209552115
- Miller, B. C., Benson, B., & Galbraith, K. A. (2001). Family relationships and adolescent pregnancy risk: A research synthesis. *Developmental review*, 21(1), 1-38. doi:10.1006/drev.2000.0513
- Miller, B. C., & Moore, K. A. (1990). Adolescent Sexual Behavior, Pregnancy, and Parenting: Research through the 1980s. *Journal of Marriage and the Family*, 52(4), 1025-1044. doi:10.2307/353317
- Mittelmark, M. B., Sagy, S., Eriksson, M., Bauer, G. F., Pelikan, J. M., Lindström, B., & Espnes, G. A. (2017). *The Handbook of Salutogenesis*. In. doi:10.1007/978-3-319-04600-6
- Modie-Moroka, T. (2014). Stress, social relationships and health outcomes in low-income Francistown, Botswana. *Social psychiatry and psychiatric epidemiology*, 49(8), 1269-1277. doi:10.1007/s00127-013-0806-8
- Mollborn, S., & Jacobs, J. (2012). "We'll Figure a Way": Teenage Mothers' Experiences in Shifting Social and Economic Contexts. *Qualitative Sociology*, 35(1), 23-46. doi:10.1007/s11133-011-9213-1

- Mombo-Ngoma, G., Mackanga, J. R., González, R., Ouedraogo, S., Kakolwa, M. A., Manego, R. Z., . . . Ramharther, M. (2016). Young adolescent girls are at high risk for adverse pregnancy outcomes in sub-Saharan Africa: an observational multicountry study. *BMJ open*. doi:10.1136/bmjopen-2016-011783
- Moore, A. M., Awusabo-Asare, K., Madise, N., John-Langba, J., & Kumi-Kyereme, A. (2007). Coerced first sex among adolescent girls in sub-Saharan Africa: prevalence and context. *African journal of reproductive health*, 11(3), 62. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2367148/pdf/nihms42617.pdf>
- Morris, J. L., & Rushwan, H. (2015). Adolescent sexual and reproductive health: The global challenges. *International Journal of Gynecology & Obstetrics*, 131, S40-S42. doi: 10.1016/j.ijgo.2015.02.006
- Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counseling psychology. *Journal of Counseling Psychology*, 52(2), 250. doi:10.1037/0022-0167.52.2.250
- Naidoo, J., & Wills, J. (2016). *Foundations for health promotion* (4th ed.). Amsterdam: Elsevier.
- National Population Council. (2000). *Adolescent reproductive health policy*. Ghana Retrieved from [https://new-ndpc-static1.s3.amazonaws.com/pubication/AdolescentReproductiveHealth+Policy\\_Oct2000.pdf](https://new-ndpc-static1.s3.amazonaws.com/pubication/AdolescentReproductiveHealth+Policy_Oct2000.pdf).
- Neal, S., Matthews, Z., Frost, M., Fogstad, H., Camacho, A. V., & Laski, L. (2012). Childbearing in adolescents aged 12–15 years in low resource countries: a neglected issue. New estimates from demographic and household surveys in 42 countries. *Acta obstetrica et gynecologica Scandinavica*, 91(9), 1114-1118. doi:10.1111/j.1600-0412.2012.01467.x
- Neuman, W. L. (2013). *Social research methods: Qualitative and quantitative approaches* (7th ed.). Edinburgh Gate: Pearson education.
- Nguyen, M. C., & Wodon, Q. (2015). Global and regional trends in child marriage. *The Review of Faith & International Affairs*, 13(3), 6-11. doi:10.1080/15570274.2015.1075756
- Nour, N. M. (2006). Health consequences of child marriage in Africa.(PERSPECTIVE). *Emerging Infectious Diseases*, 12(11), 1644. doi:10.3201/eid1211.060510
- Oduro, G. Y., & Otsin, M. N. A. (2014). “Abortion—It Is My Own Body”: Women's Narratives About Influences on Their Abortion Decisions in Ghana. *Health care for women international*, 35(7-9), 918-936. doi:10.1080/07399332.2014.914941
- Okereke, C. I. (2010). Assessing the Prevalence and Determinants of Adolescents' Unintended Pregnancy and Induced Abortion In Owerri, Nigeria. *Journal of biosocial science*, 42(5), 619-632. doi:10.1017/S0021932010000179
- Orish, V. N., Onyeabor, O. S., Boampong, J. N., Aforakwah, R., Nwaefuna, E., & Iriemenam, N. C. (2012). Adolescent pregnancy and the risk of Plasmodium falciparum malaria and anaemia—A pilot study from Sekondi-Takoradi metropolis, Ghana. *Acta tropica*, 123(3), 244-248. doi:10.1016/j.actatropica.2012.05.014
- Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., . . . Bonell, C. (2016). Our future: a Lancet commission on adolescent health and wellbeing. *The Lancet*, 387(10036), 2423-2478. doi:10.1016/S0140-6736(16)00579-1
- Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Thousand Oaks, California: Sage publications.
- Payne, C. M., Debbink, M. P., Steele, E. A., Buck, C. T., Martin, L. A., Hassinger, J. A., & Harris, L. H. (2013). Why women are dying from unsafe abortion: narratives of Ghanaian abortion providers. *African journal of reproductive health*, 17(2), 118-128. <https://search-proquest-com.pva.uib.no/docview/1418211295/fulltextPDF/F71CE9B46B4945CDPQ/1?accountid=8579>
- Pogoy, A. M., Verzosa, R., Coming, N. S., & Agustino, R. G. (2014). Lived experiences of early pregnancy among teenagers: A phenomenological study. *European Scientific Journal*, 10(2). [https://s3.amazonaws.com/academia.edu.documents/35924608/2587-7610-1-PB\\_1.pdf?response-content-](https://s3.amazonaws.com/academia.edu.documents/35924608/2587-7610-1-PB_1.pdf?response-content-)

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- Pradhan, R., Wynter, K., & Fisher, J. (2015). Factors associated with pregnancy among adolescents in low-income and lower middle-income countries: a systematic review. *J Epidemiol Community Health, 69*(9), 918-924. doi:10.1136/jech-2014-205128
- Punch, K. F. (2014). *Introduction to social research: Quantitative and qualitative approaches* (3rd ed.). London: sage.
- Raj, A., Saggurti, N., Balaiah, D., & Silverman, J. (2009). Prevalence of child marriage and its effect on fertility and fertility-control outcomes of young women in India: a cross-sectional, observational study. *The Lancet, 373*(9678), 1883-1889. doi:10.1016/S0140-6736(09)60246-4
- Rasheed, P., Koura, M. R., Al-Dabal, B. K., & Makki, S. M. (2008). Anemia in pregnancy: A study among attendees of primary health care centers. *Annals of Saudi medicine, 28*(6), 449-452. doi:10.5144/0256-4947.2008.449
- Reed, E., West, B. S., Salazar, M., & Monroy, R. V. (2018). Economic empowerment to improve sexual and reproductive health among women and girls. In *Global Perspectives on Women's Sexual and Reproductive Health Across the Lifecourse* (pp. 297-315): Springer.
- Rose-Clarke, K., Bentley, A., Marston, C., & Prost, A. (2019). Peer-facilitated community-based interventions for adolescent health in low-and middle-income countries: A systematic review. *PLoS ONE, 14*(1), e0210468. doi:10.1371/journal.pone.0210468
- Sagy, S., & Antonovsky, H. (2000). The development of the sense of coherence: A retrospective study of early life experiences in the family. *The international journal of aging and human development, 51*(2), 155-166. doi:10.2190/765L-K6NV-JK52-UFKT
- Santelli, J. S., Lindberg, L. D., Finer, L. B., & Singh, S. (2007). Explaining recent declines in adolescent pregnancy in the United States: the contribution of abstinence and improved contraceptive use. *American journal of public health, 97*(1), 150-156.
- Seale, C. (1999). Quality in qualitative research. *Qualitative inquiry, 5*(4), 465-478. doi:10.1177/107780049900500402
- Sedgh, G. (2010). Abortion in Ghana. *Issues in brief (Alan Guttmacher Institute), (2)*, 1-4. <https://www.guttmacher.org/sites/default/files/factsheet/fb-abortion-in-ghana.pdf>
- Sharma, A. K., Verma, K., Khatri, S., & Kannan, A. T. (2002). Determinants of pregnancy in adolescents in Nepal. *The Indian journal of pediatrics, 69*(1), 19-22. doi:10.1007/BF02723769
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information, 22*(2), 63-75. doi:10.3233/EFI-2004-22201
- Sherbourne, C. D., & Stewart, A. L. (1991). The MOS social support survey. *Social Science & Medicine, 32*(6), 705-714. doi:10.1016/0277-9536(91)90150-B
- Sifakis, S., & Pharmakides, G. (2000). Anemia in pregnancy. *Annals of the New York Academy of Sciences, 900*(1), 125-136. doi:10.1111/j.1749-6632.2000.tb06223.x
- Simkins, L. (1984). Consequences of Teenage Pregnancy and Motherhood. *Adolescence, 19*(73), 39. <https://search.proquest.com/docview/1295931321/fulltextPDF/2361C1EC308C44F4PQ/1?accountid=8579>
- Singh, S., Darroch, J. E., & Frost, J. J. (2001). Socioeconomic disadvantage and adolescent women's sexual and reproductive behavior: the case of five developed countries. *Family planning perspectives, 251-289*. [https://www.jstor.org/stable/pdf/3030192.pdf?casa\\_token=zZhE0bPMWcQAAAAA:ew2OYX4rw8neuXx8lXawNdT-qKR5sRxU\\_hdhZqvcSryobyAs0-cCteFVHc-PzYT4-pCWDXCa\\_BQvi1NZEjdcjdZwNJOBOH3QGsfnHFY9abobsmjPDA](https://www.jstor.org/stable/pdf/3030192.pdf?casa_token=zZhE0bPMWcQAAAAA:ew2OYX4rw8neuXx8lXawNdT-qKR5sRxU_hdhZqvcSryobyAs0-cCteFVHc-PzYT4-pCWDXCa_BQvi1NZEjdcjdZwNJOBOH3QGsfnHFY9abobsmjPDA)

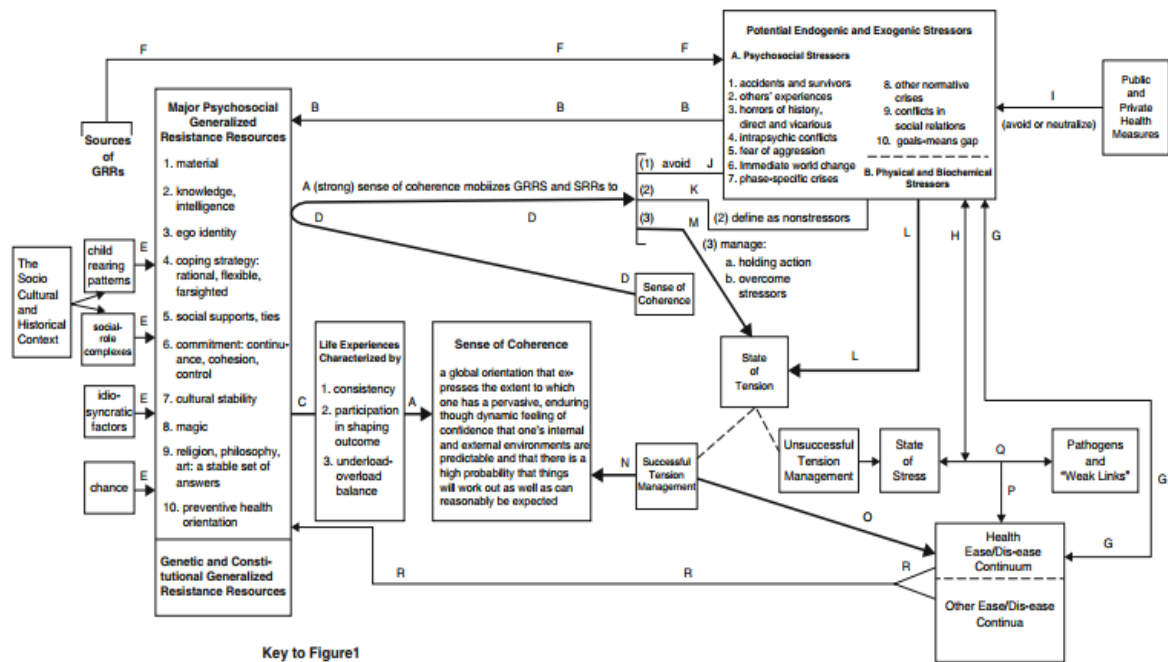
- Skovdal, M., & Cornish, F. (2015). *Qualitative research for development*. Rugby, Warwickshire, UK: Practical Action Publishing Ltd.
- Speizer, I. S., Magnani, R. J., & Colvin, C. E. (2003). The effectiveness of adolescent reproductive health interventions in developing countries: a review of the evidence. *Journal of Adolescent Health, 33*(5), 324-348. doi:10.1016/51054-139X(02)00535-9
- Speizer, I. S., Tambashe, B. O., & Tegang, S. P. (2001). An evaluation of the “Entre nous jeunes” peer—educator program for adolescents in Cameroon. *Studies in family planning, 32*(4), 339-351. doi:10.1111/j.1728-4465.2001.00339.x
- Sriranganathan, G., Jaworsky, D., Larkin, J., Flicker, S., Campbell, L., Flynn, S., . . . Erlich, L. (2012). Peer sexual health education: Interventions for effective programme evaluation. *Health Education Journal, 71*(1), 62-71. doi:10.1177/0017896910386266
- Stoner, M. C., Rucinski, K. B., Edwards, J. K., Selin, A., Hughes, J. P., Wang, J., . . . Kahn, K. (2019). The relationship between school dropout and pregnancy among adolescent girls and young women in South Africa: A HPTN 068 analysis. *Health Education & Behavior, 46*(4), 559-568. doi:10.1177/1090198119831755
- Sundaram, A., Juarez, F., Bankole, A., & Singh, S. (2012). Factors associated with abortion-seeking and obtaining a safe abortion in Ghana. *Studies in family planning, 43*(4), 273-286. doi:10.1111/j.1728-4465.2012.00326.x
- Super, S., Wagemakers, M. A. E., Picavet, H. S. J., Verkooijen, K. T., & Koelen, M. A. (2015). Strengthening sense of coherence: opportunities for theory building in health promotion. *Health promotion international, 31*(4). doi:10.1093/heapro/dav071
- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative inquiry, 16*(10), 837-851. doi:10.1177/1077800410383121
- Turner, R. J., Grindstaff, C. F., & Phillips, N. (1990). Social support and outcome in teenage pregnancy. *Journal of health and social behavior, 43*-57. [https://www.jstor.org/stable/pdf/2137044.pdf?casa\\_token=yptfxCCZ6bkAAAAA:YdNx9kL2yFR1OK1yTg2tcWmZvTVJJ9ZeH3x372ldkYWYBpGFkrj80AduEs9uMpfRgkP0i8xLg4\\_6jF\\_XxIaRuZnL87YjyoKNf\\_WSNA27JWfBCLDEoo](https://www.jstor.org/stable/pdf/2137044.pdf?casa_token=yptfxCCZ6bkAAAAA:YdNx9kL2yFR1OK1yTg2tcWmZvTVJJ9ZeH3x372ldkYWYBpGFkrj80AduEs9uMpfRgkP0i8xLg4_6jF_XxIaRuZnL87YjyoKNf_WSNA27JWfBCLDEoo)
- UNFPA. (2004). *Programme of action adopted at the international conference on population and development, Cairo, 5-13 September 1994*. Cairo Retrieved from [https://www.unfpa.org/sites/default/files/event-pdf/PoA\\_en.pdf](https://www.unfpa.org/sites/default/files/event-pdf/PoA_en.pdf).
- UNFPA. (2013). *Adolescent pregnancy: a review of the evidence*. New York Retrieved from [https://www.unfpa.org/sites/default/files/pub-pdf/ADOLESCENT%20PREGNANCY\\_UNFPA.pdf](https://www.unfpa.org/sites/default/files/pub-pdf/ADOLESCENT%20PREGNANCY_UNFPA.pdf).
- UNFPA. (2015). *Girlhood, not motherhood : preventing adolescent pregnancy*. New York Retrieved from [https://www.unfpa.org/sites/default/files/pub-pdf/Girlhood\\_not\\_motherhood\\_final\\_web.pdf](https://www.unfpa.org/sites/default/files/pub-pdf/Girlhood_not_motherhood_final_web.pdf).
- UNFPA. (2016). *Universal Access to Reproductive Health : Progress and Challenges* New York Retrieved from [https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA\\_Reproductive\\_Paper\\_20160120\\_online.pdf](https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA_Reproductive_Paper_20160120_online.pdf).
- UNICEF. (2012). *A note on child marriage*. New York Retrieved from [https://www.unicef.org/policyanalysis/files/Note\\_on\\_Child\\_Marriage.pdf](https://www.unicef.org/policyanalysis/files/Note_on_Child_Marriage.pdf).
- United Nations. (1989). *Convention on the Rights of the Child*. Retrieved from <https://www.ohchr.org/documents/professionalinterest/crc.pdf>.
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. Retrieved from <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>
- Watt, D. (2007). On becoming a qualitative researcher: the value of reflexivity. *Qualitative Report, 12*(1), 82-101. <https://files.eric.ed.gov/fulltext/EJ800164.pdf>

- Webb, R. T., Marshall, C. E., & Abel, K. M. (2011). Teenage motherhood and risk of premature death: long-term follow-up in the ONS Longitudinal Study. *Psychological medicine*, 41(9), 1867. doi:10.1017/S0033291711000055
- Weed, S. E., & Ericksen, I. H. (2019). *Re-Examining the Evidence for Comprehensive Sex Education in Schools: A Global Research Review*. Retrieved from [https://www.institute-research.com/CSEReport/Global CSE Report 12-17-19.pdf](https://www.institute-research.com/CSEReport/Global%20CSE%20Report%2012-17-19.pdf)
- WHO. (1986). *Ottawa Charter for Health Promotion*. Retrieved from [http://www.euro.who.int/data/assets/pdf\\_file/0004/129532/Ottawa Charter.pdf?ua=1](http://www.euro.who.int/data/assets/pdf_file/0004/129532/Ottawa_Charter.pdf?ua=1).
- WHO. (2004). *Adolescent Pregnancy, Issues in Adolescent Health and Development*. Geneva Retrieved from [http://apps.who.int/iris/bitstream/handle/10665/42903/9241591455\\_eng.pdf?sequence=1](http://apps.who.int/iris/bitstream/handle/10665/42903/9241591455_eng.pdf?sequence=1).
- WHO. (2014). *Adolescent Pregnancy, Fact sheet*. Retrieved from [https://apps.who.int/iris/bitstream/handle/10665/112320/WHO RHR 14.08\\_eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/112320/WHO_RHR_14.08_eng.pdf).
- Williamson, L. M., Parkes, A., Wight, D., Petticrew, M., & Hart, G. J. (2009). Limits to modern contraceptive use among young women in developing countries: a systematic review of qualitative research. *Reproductive Health*, 6(1), 3. doi:10.1186/1742-4755-6-3
- Witter, S., Adjei, S., Armar-Klimesu, M., & Graham, W. (2009). Providing free maternal health care: ten lessons from an evaluation of the national delivery exemption policy in Ghana. *Global health action*, 2(1), 1881. doi: 10.3402/gha.v2i0.1881
- Wodon, Q., Male, C., Nayihouba, A., Onagoruwa, A., Savadogo, A., Yedan, A., . . . Murithi, L. (2017). Economic impacts of child marriage: global synthesis report. <http://documents.worldbank.org/curated/en/530891498511398503/pdf/116829-WP-P151842-PUBLIC-EICM-Global-Conference-Edition-June-27.pdf>
- Wolf, R. C., Bond, K. C., & Tawfik, L. A. (2000). Peer promotion programs and social networks in Ghana: methods for monitoring and evaluating AIDS prevention and reproductive health programs among adolescents and young adults. *Journal of Health Communication*, 5(sup1), 61-80. doi:10.1080/10810730050019564
- Woodward, L., Fergusson, D. M., & Horwood, L. J. (2001). Risk factors and life processes associated with teenage pregnancy: Results of a prospective study from birth to 20 years. *Journal of Marriage and Family*, 63(4), 1170-1184. doi:10.1111/j.1741-3737.2001.01170.x
- Yakubu, I., & Salisu, W. J. (2018). Determinants of adolescent pregnancy in sub-Saharan Africa: a systematic review. *Reproductive Health*, 15(1), 15. doi:10.1186/s12978-018-0460-4
- Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education*, 48(2), 311-325. doi:10.1111/ejed.12014
- Yin, E. T., & Black, J. M. (2014). The legal anthropology of marriage in Ghana: Presenting power dynamics through legal arenas. *International journal of current research*, 6(12), 10696-10704. <https://www.journalcra.com/sites/default/files/issue-pdf/6810.pdf>
- Zabin, L. S., & Kiragu, K. (1998). The Health Consequences of Adolescent Sexual and Fertility Behavior in Sub-Saharan Africa. *Studies in family planning*, 210-232. doi:10.2307/172160



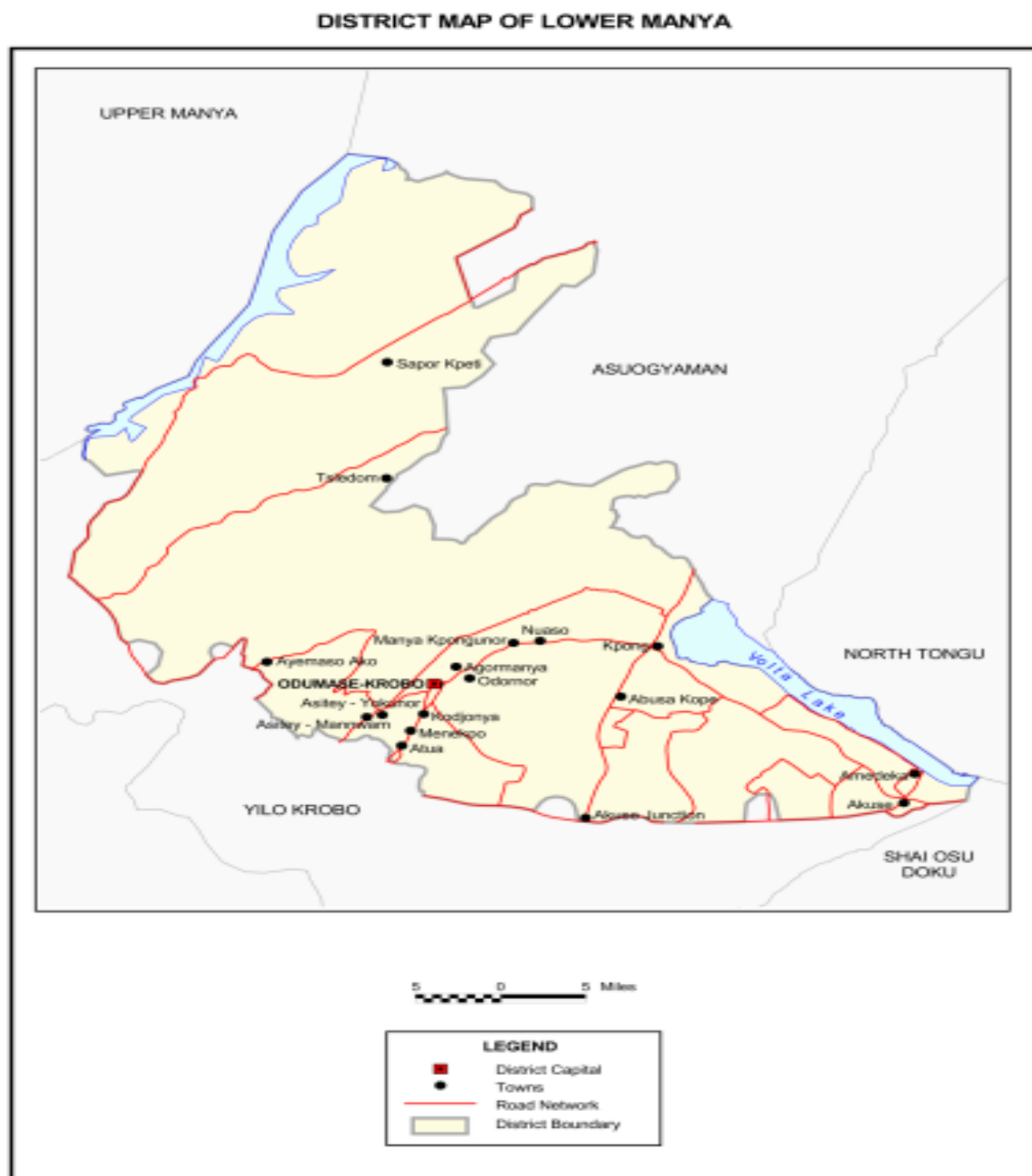
# Appendices

## Appendix 1. Salutogenic model of health



(Mittelmark et al., 2017)

## Appendix 2. Map of Lower Manya Krobo Municipality



Sources :(Ghana Statistical Service, 2014)

### **Appendix 3. Interview guide (Primary Participants)**

**Research topic:** Experiences and coping mechanisms of adolescent mothers and policy intervention programmes to reduce adolescent pregnancies in Manya Krobo District, Ghana.

**Researcher:** Prince Abotsi

#### Interview Guide (Adolescent mothers)

My name is Prince Abotsi and I am a master's degree student from the University of Bergen (UiB) in Norway conducting a study on the experiences and coping mechanisms of adolescent mothers. The study is also aimed at identify intervention programmes that could help reduce the rate of adolescent pregnancy.

The essence of this interview is for you to share your personal experience and how you coped during your time of pregnancy and after delivery. You are free to decline to respond to any question and to end the interview at any time. You are also allowed to ask questions or for clarification during the interview.

1. Can you start by telling me something about yourself and how you were raised (your name, age, and education, number of children, whether you are currently living with your partner, your parents or a family relative)?
2. Were you raised by both parents or a single parent, or you lived with a family relative before you got pregnant.
3. Can you also tell me something about you family, that is your parents, what they do for a living, the number of siblings you have.
4. Can you tell me the circumstances (how) you got pregnant and the age at which you got pregnant? Prop further to find out how she got parent
5. What was your reaction and what were you thinking when you first find out you were pregnant? Prop further to find out the first person she told about her pregnancy and why she chose that person and the reaction of the person and what advice they gave her.
6. How were you treated by your parents, extended family, friends or partner? Inclusion/acceptance or rejection.
7. Can you tell me about some of the challenges you face during your period of pregnancy and after delivery.
8. How did you manage or cope with these challenges.

9. How much information did you have about birth control measures (contraceptive use) before you got pregnant and now?
10. Sexual reproductive education in schools and within the community
11. Have you had the opportunity to participate in any NGO programme?
12. Did you under go any cultural rites that gave you information about sex and sexuality
13. Did you ever consider having an abortion when you realized you were pregnant? Prop further. Prop further to find out from whom and where she got the information
14. What was your motivation for seeking this information?
15. Did you deliver your baby at home or at a health centre? Prop further to find out if she was taken to the health center by someone or she went by herself, how accessible, available and affordable is the health service.
16. Access to health services (antenatal and postnatal care)
17. Do you have any form of support group?
18. How did your education turn out after you gave birth? Prop further
19. Source of income (employment, support from partner, parents, extended family or friends)
20. What did you want to become in the future when you were in school.
21. Do you still think you can achieve that goal? Prop further, how or Why not?
22. Do you feel there is a lot more support you can get from the community than you are receiving now? Prop further on the kind of support available. Both what is available and what she would want to have available, and not only from community, can also be partner, family, government, health system, global community...
23. Are you happy with being a young mother? Why/ why not?
24. From your experience, what advice will you give other teenage girls in your community?

#### **Appendix 4. Interview Guide Key informants (Health professionals and school teachers)**

Researcher introduces himself, explains the purpose of research, the essence of the interview and why the participant was chosen

My name is Prince Abotsi and I am a master's degree student from the University of Bergen in Norway conducting a study on the experiences and coping mechanisms of adolescent mothers. The study is also aimed at identify intervention programmes that could help reduce the rate of adolescent pregnancy.

The essence of this interview is for you to share your experience with the phenomenon of adolescent pregnancy, what you think could be contributing to adolescent pregnancy and what can be done to reduce to rate of adolescent pregnancy. You are free to decline to respond to any question and to end the interview at any time. You are also allowed to ask questions or for clarification during the interview.

1. Can you tell me about yourself (name, job title, job description, number of years in current job)
2. Can you share your experiences with adolescent mothers
3. What are your perceptions about the Prevalence of adolescent pregnancy within the community
4. What factors do you think account for adolescent pregnancy in this community
5. Societal perception of adolescent pregnancy
6. What challenges do adolescent girls face within the community
7. What resources do you think help them to cope with these challenges?
8. Available health and social services to support adolescent mothers
9. Are there any Reproductive health information interventions particularly targeted at adolescents
10. How is reproductive health information disseminated to adolescents if there is any?
11. What measures/intervention programs are in place to protect girls from getting pregnant at a younger age within your community (Nationwide)
12. In your opinion, how effective are these intervention programmes. Prop further, why are they working or not working
13. What additional or alternative measures do you think should be implemented? Prop further: what resources, laws do you think could make a difference? Government interventions, NGO/international donor interventions, differences/similarities/cooperation and tensions

14. What role do you think parents, teachers and health professional have to play in order to address adolescent pregnancy in the community
15. What is the general perception of contraceptive or birth control use among adolescents
16. As a health professional, what is your position on abortion? What is the rules and regulations on a national/regional level?
17. What mechanisms are in place to enable adolescents continue their education after they have given birth if they wish to complete their education?
18. Social or economic support systems available to help adolescent mothers earn a living or get employment.
19. Where do you as a professionals believe adolescent mothers get/seek support from?
20. Do you receive any special training to handle incidents of adolescent pregnancy in your line of work?
21. As a queen mother what are some of the cultural practices that are aimed at preventing adolescent pregnancy? How are they performed?
22. Do you coordinate your programmes with other sectors such as NGOs, health and education and traditional and opinion leaders?
23. Do you engage adolescents when designing policies or intervention programmes targeted at adolescents

## **Appendix 5. Interview Guide: Key informants (NGO Staffs)**

1. Can you tell me about yourself (name, job title, job description, number of years in current job)
2. How long has this programme been running?
3. What services/programmes are you providing for adolescents?
4. What is your target group?
5. What impact has it made in the life of adolescents
6. Can you share your experiences with adolescent mothers
7. What are your perceptions about the Prevalence of adolescent pregnancy within the community
8. What factors do you think account for adolescent pregnancy in this community
9. Societal perception of adolescent pregnancy.
10. What challenges do adolescent girls face within the community
11. What resources do you think help them to cope with these challenges?
12. Do you have any coordination with other sectors such as health and education sector and other stakeholders such as traditional and opinion leaders
13. Do you engage adolescents when designing policies or intervention programmes targeted at adolescents? Prop further, what contribution/input do adolescents make to the programme?

## Appendix 6. Coding framework

<b>CODES</b>	<b>BASIC THEMES</b>	<b>ORGANISING THEME</b>	<b>GLOBAL THEMES</b>
Lack of money for food and basic needs	Poverty	stress/ risk factors associated with adolescent pregnancy	Experiences and Coping Mechanisms of Adolescent Mothers
The need to have a boyfriend as a means of survival			
Lack of parental care	Parental neglect		
Children as head of household			
Lack of protection against sexual abuse	Victim of sexual abuse		
Sexual abuse			
Prevalence of adolescent pregnancy	Lack of role models		
Peer influence			
Dipo rite	Rite of passage		
Raised by single parent	Single Parenting		
Denial of pregnancy			
Marital system			
Caesarean section	Pregnancy and delivery related stressors		
Complications during pregnancy			
Personal view against abortion	Abortion related stressors		
Discourage abortion			
Societal perception about abortion			
Self-induced abortion			
School drop out	Educational attainment		
Lack of interest in schooling			
Feeling of sadness and shock	emotional stressors		
Parental disappointment			
Shame and feeling of guilt/ Fear of bringing shame to the family or parents			
Post-natal health care	availability of hospitals and community health facilities	resources/coping	
Positive treatment from health workers			
Safe abortion			
Family planning services			
Ante natal care services			
Information about nutrition during pregnancy			
Health insurance	national health insurance		



Vocational training	Economic opportunities	mechanism		
Petty trading				
Vocational training services	activities of NGOs			
Education on safe abortion				
Financial support from NGO				
Extra help to nurse children whilst they go back to school or work	Financial and child care support			
Financial support from mothers				
Financial support from partner				
Protection against stigma in school	Friendly school environment			
School support system for pregnant students and mothers				
Counselling and support from teachers	Emotional support			
Emotional support from friends and family relatives				
Physical access to medical contraceptives	Education and access to contraceptives	Education and access to adolescent sexual and reproductive health services	Interventions Targeted At Reducing Adolescent Pregnancy	
Free condoms				
Health centres and health workers providing reproductive health information				
Community health education	community reproductive health education programmes			
Community education on family planning				
School visitation				
Student participation	school-based sexual and reproductive health education			
School health education				
School curricula on reproductive health				
Continue schooling				
Special interest in girl child education				
Education on sex and abstinence				
Educational and leisure activities	School feeding programme			social intervention programmes
Feeding for primary pupils				
Free school uniforms				
Free sanitary pad	Provision of free basic needs			
Contraceptive can give fibroid		societal perception of medical contraceptives	Implementation challenges	
Contraceptives can make you infertile				
Poor teacher motivation	Lack of teacher motivation			
Lack of money to organize workshops for teachers				
Lack of time	Congested school			

	curriculum		
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## Appendix 7. Research Clearance from NSD

9/2/2019

Meldeskjema for behandling av personopplysninger



### NSD's assessment

#### Project title

Experiences and coping mechanisms of adolescent mothers and policy intervention programmes to reduce adolescent pregnancies in Manya Krobo District, Ghana

#### Reference number

487647

#### Registered

08.08.2019 av Prince Abotsi - Prince.Abotsi@student.uib.no

#### Data controller (institution responsible for the project)

Universitetet i Bergen / Det psykologiske fakultet / Hemil-senteret

#### Project leader (academic employee/supervisor or PhD candidate)

Wenche Dageid, Wenche.Dageid@uib.no, tlf: 004755584849

#### Type of project

Student project, Master's thesis

#### Contact information, student

Prince Abotsi, prince.abotsi@student.uib.no, tlf: 40977457

#### Project period

24.12.2019 - 22.05.2020

#### Status

29.08.2019 - Assessed

#### Assessment (1)

---

##### 29.08.2019 - Assessed

Our assessment is that the processing of personal data in this project will comply with data protection legislation, presupposing that it is carried out in accordance with the information given in the Notification Form and attachments dated 29.08.2019, as well as in dialogue with NSD. Everything is in place for the processing to begin.

#### NOTIFY CHANGES

If you intend to make changes to the processing of personal data in this project it may be necessary to notify NSD. This is done by updating the Notification Form. On our website we explain which changes must be notified. Wait until you receive an answer from us before you carry out the changes.

#### TYPE OF DATA AND DURATION

The project will be processing general categories of personal data, and for Sample 1 also special categories of personal data about health, until 22.05.2020.

#### LEGAL BASIS

Sample 2, 3 and 4: The project will gain consent from data subjects to process their personal data. We find that consent will meet the necessary requirements under art. 4 (11) and 7, in that it will be a freely given, specific, informed and unambiguous statement or action, which will be documented and can be withdrawn. The legal basis for processing personal data is therefore consent given by the data subject, cf. the General Data Protection Regulation art. 6.1 a).

Sample 1: The legal basis for processing special categories of personal data is the explicit consent given by the data subject, cf. the General Data Protection Regulation art. 6.1 a), cf. art. 9.2 a), cf. the Personal Data Act § 10, cf. § 9 (2).

#### PRINCIPLES RELATING TO PROCESSING PERSONAL DATA

NSD finds that the planned processing of personal data will be in accordance with the principles under the General Data Protection Regulation regarding:

- lawfulness, fairness and transparency (art. 5.1 a), in that data subjects will receive sufficient information about the processing and will give their consent
- purpose limitation (art. 5.1 b), in that personal data will be collected for specified, explicit and legitimate purposes, and will not be processed for new, incompatible purposes
- data minimisation (art. 5.1 c), in that only personal data which are adequate, relevant and necessary for the purpose of the project will be processed
- storage limitation (art. 5.1 e), in that personal data will not be stored for longer than is necessary to fulfil the project's purpose

#### THE RIGHTS OF DATA SUBJECTS

Data subjects will have the following rights in this project: transparency (art. 12), information (art. 13), access (art. 15), rectification (art. 16), erasure (art. 17), restriction of processing (art. 18), notification (art. 19), data portability (art. 20). These rights apply so long as the data subject can be identified in the collected data.

NSD finds that the information that will be given to data subjects about the processing of their personal data will meet the legal requirements for form and content, cf. art. 12.1 and art. 13.

We remind you that if a data subject contacts you about their rights, the data controller has a duty to reply within a month.

#### FOLLOW YOUR INSTITUTION'S GUIDELINES

NSD presupposes that the project will meet the requirements of accuracy (art. 5.1 d), integrity and confidentiality (art. 5.1 f) and security (art. 32) when processing personal data.

To ensure that these requirements are met you must follow your institution's internal guidelines and/or consult with your institution (i.e. the institution responsible for the project).

#### FOLLOW-UP OF THE PROJECT

NSD will follow up the progress of the project at the planned end date in order to determine whether the processing of personal data has been concluded.

Good luck with the project!

Contact person at NSD: Karin Lillevold  
Data Protection Services for Research: +47 55 58 21 17 (press 1)

## Appendix 8. Notification of changes to NSD

Send message

K

**Karin Lillevold**

21.04.2020 09:43

Hi,

Thank you for letting us know. Everything is in order.

Best regards,  
Karin  
NSD


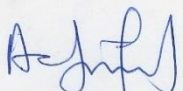
P

**Prince Abotsi**

20.04.2020 14:13

Hello, I will like to request for some changes in the age range for my research sample 1. during my fieldwork I recruited a few participants who did not fall into the initial age range specified. the youngest participant for my study was 17 and the oldest was 35 years, I however secured consent from the legal guardian of the youngest participant. I will therefore like to bring this information to your attention.

## Appendix 9. Research clearance from Municipal health directorate

In case of reply the number and the date of this letter should be quoted	<b>GHANA HEALTH SERVICE</b>	Core values of the Ghana Health Service
		<ul style="list-style-type: none"><li>* PEOPLE – CENTRED</li><li>* PROFESSIONALISM</li><li>* TEAM WORK</li><li>* INNOVATION</li><li>* EXCELLENCE</li><li>* DISCIPLINE</li><li>* INTEGRITY</li></ul>
<b>LOWER MANYA KROBO MUNICIPAL HEALTH DIRECTORATE</b>		
P. O. Box 64, Odumase – Krobo My Ref.: No. LMKM/EAS/ 189 /19/	Tel: 03420-94419/0342098630 Your Ref.: .....	Email: <a href="mailto:lowermanyakrobodha@gmail.com">lowermanyakrobodha@gmail.com</a> Date: 28 <sup>th</sup> November, 2019
<b><u>LETTER OF INTRODUCTION</u></b> <b><u>MR. PRINCE ABOTSI</u></b>		
I have the pleasure to introduce to you the above-named, a student of University of Bergen, Norway.		
He is pursuing a Master’s programme in Global Development Theory and Practice.		
He is in the municipality as part of the programme to conduct a study on the experiences and coping mechanisms of adolescent mothers and policy intervention programmes in the Manya Krobo District, Ghana. He will be in your facility to conduct interviews with health staff and patients.		
I would be happy if you could accord him the necessary assistance.		
Thank you.		
		
<b>DR. (MRS.) AKOSUA A. OWUSU-SARPONG</b> MUNICIPAL DIRECTOR OF HEALTH SERVICES LOWER MANYA KROBO MUNICIPAL ODUMASE-KROBO		

**Appendix 10. Research clearance from Municipal education directorate**

**GHANA EDUCATION SERVICE**

In case of reply the number and date of this letter should be quoted



**MUNICIPAL EDUCATION OFFICE  
P. O. BOX 49  
ODUMASE-KROBO  
2<sup>ND</sup> DECEMBER, 2019.**

My Ref.No GES/ER/LMKM/P.241/V.7/57

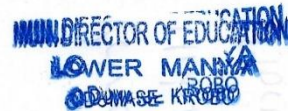
REPUBLIC OF GHANA

**PERMISSION LETTER**

Permission has been granted for you to conduct a research about Adolescent Pregnancy at public Senior High School (Akro Senior High Technical School) and Basic Schools (Kodjonya Millennium and Odumase Presby and Agomanya Methodist Junior High Schools) within Lower Manya Krobo municipality.

I wish you a successful research.

MR. WILLIAMS KWAKU ODOI  
MUNICIPAL DIRECTOR OF EDUCATION  
LOWER MANYA KROBO



PRINCE ABOTSI  
UNIVERSITY OF BERGEN  
NORWAY

ELM

## **Appendix 11. Information letter and consent form (Primary Participants)**

### **Information Letter.**

#### **Primary Participants (Adolescent Mothers)**

## **Are you interested in taking part in the research project**

**Research Title:** Experiences and coping mechanisms of adolescent mothers and policy intervention programmes to reduce adolescent pregnancies in Manya Krobo District, Ghana.

**Researcher (Principal Investigator):** Prince Abotsi

**Programme:** MPHIL, Global Development Theory and Practice

**Affiliated Institution:** Department of health promotion and Development, Faculty of Psychology, University of Bergen, Norway

**Supervisor:** Wenche Dageid

#### Introduction

This is an inquiry about participation in a research project where the main purpose is to find out how adolescent mothers are coping with the challenges of early motherhood and the resources that are available to them. In this letter I will give you information about the purpose of the project and what your participation will involve.

#### **Purpose of the project**

The research is in fulfilment of the requirement for the Master of Philosophy in Global Development Theory and Practice.

The purpose of the study is to investigate how adolescent mothers are coping with the challenges of early motherhood and the resources that are available to them. A further aim of the study is to identify alternative programme interventions from the perspective of adolescents on how to help reduce adolescent pregnancy given the continuous rise in adolescent pregnancy in the Manya Krobo district. The study would do an evaluation of the current policy interventions in order to identify more effective intervention programmes that could help reduce adolescent pregnancy in the district.

#### **Research Objective and Questions**



The objectives of the study is to explore the personal experiences of adolescent mothers and their coping mechanism as well as measures to reduce adolescent pregnancy.

The specific questions the study seeks to answer include;

- What challenges do adolescent mothers face?
- How are adolescent mothers coping and what are the resources they draw on to enable them to manage with teenage motherhood?
- What are the current intervention programmes and policies aimed at addressing adolescent pregnancy?
- How can policy interventions be improved or designed so as to support adolescent mothers and help reduce adolescent pregnancy?

### **Who is responsible for the research project?**

The University of Bergen is the institution responsible for the project.

### **Why are you being asked to participate?**

You as a participant has been purposively/deliberately selected to participate in this research among other participants as you all became mothers when you were teenagers. The principal researcher is primarily interested in your experiences as a teenage mother and what in your opinion you think can be done differently to reduce the rate of adolescent pregnancy in your community. The researcher would also interview teachers and health professionals on what their views are on adolescent pregnancy. The information you provide will be very valuable to the final outcome of this research project.

### **What does participation involve for you?**

If you choose to take part in the project, this will involve that you participate in a one-on-one personal interview with the principal investigator which may last approximately 30-45 minutes and also a focus group discussion with at least 3 other participants if you wish to join in the discussion group to share your experiences with other participants. The focus group discussions will take approx. 45-60 minutes.

The interview will include questions about your social and economic well-being, access to health facilities and information and the resources that you rely on to support yourself. In the course of the interview you will be asked a series of open ended questions about how you are coping with early motherhood, the resources that you draw on and what you think could possibly help other young girls from getting pregnant at an early age. You will also be asked questions regarding the economic and educational background of your parents and partner/husband if you happen to be living with a partner or husband. You are allowed to speak for as long as you want. There is no right or wrong response to the questions.

The interview and focus group discussion will be conducted in a language of your choice and with your permission the interview and focus group discussion session will be recorded using an audio recording device and later transcribed into text.

### **Participation is voluntary**

Participation in the project is voluntary. If you choose to participate, you can withdraw your consent at any time without giving a reason. All information about you will then be made anonymous. There will be no negative consequences for you if you choose not to participate or later decide to withdraw.

This include withdrawing from interview sessions at any point or request for any data previously obtained from you to not be included in the study report. You can also choose not to respond to questions you do not feel comfortable responding to. You are also allowed to ask questions during or after interview sessions. You will not get any financial or physical reward for you participation in this study but you will be reimbursed for cost of transportation related to this study if you happen to incur any. Your participation is highly appreciated and will be valuable to the final outcome of this study

### **Your personal privacy – how we will store and use your personal data**

We will only use your personal data for the purpose(s) specified in this information letter. We will process your personal data confidentially and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act).

Any information obtained from you is strictly confidential and your identity will be kept anonymous. You and anyone else mentioned in the interview will be assigned a code name to protect your identity in the final study report and any future publication of this study. The list of names, contact details and respective codes will be stored separately from the rest of the collected data, All audio recordings obtained from you will be stored and transcribed on a secured University of Bergen (UiB) research server and automatically deleted when transcription is completed. All transcribed data gathered from you will be stored on a secured computer and shared with only the supervisor of this study

Any personal data gathered from you will be in the sole custody of the principal investigator (student) and transferred only to the supervisor in Norway.

### **What will happen to your personal data at the end of the research project?**

The project is scheduled to end *on 23<sup>rd</sup> May 2020*. Upon completion of this study all your personal data and audio recordings from interview and focus group discussion will be completely destroyed.

### **Your rights**

So long as you can be identified in the collected data, you have the right to:

- access the personal data that is being processed about you
- request that your personal data is deleted

- request that incorrect personal data about you is corrected/rectified
- receive a copy of your personal data (data portability), and
- send a complaint to the Data Protection Officer or The Norwegian Data Protection Authority regarding the processing of your personal data

### **What gives us the right to process your personal data?**

We will process your personal data based on your consent.

Based on an agreement with the University of Bergen, NSD – The Norwegian Centre for Research Data AS has assessed that the processing of personal data in this project is in accordance with data protection legislation.

### **Where can I find out more?**

If you have questions about the project, or want to exercise your rights, contact:

- Department of health promotion and Development, Faculty of Psychology, University of Bergen, Norway

Supervisor : Wenche Dageid

Tel : +4755584849, +4792894326

Email : [Wenche.Dageid@uib.no](mailto:Wenche.Dageid@uib.no)

Student (Principal Investigator) : Prince Abotsi

Tel : +4740977457

Email : [Prince.abotsi@student.uib.no](mailto:Prince.abotsi@student.uib.no)

- NSD – The Norwegian Centre for Research Data AS, by email: ([personverntjenester@nsd.no](mailto:personverntjenester@nsd.no)) or by telephone: +47 55 58 21 17.

Yours sincerely,

Project  
Leader

Student (if applicable)

(Researcher/supervisor)

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## Consent form

I have received and understood information about the project [*Experiences and coping mechanisms of adolescent mothers and policy intervention programmes to reduce adolescent pregnancies in Manya Krobo District, Ghana*] and have been given the opportunity to ask questions. I give consent:

- to participate in ( *an interview*)
- to participate in (*focus group discussion*)
- For information about me/myself to be published in a way that I cannot be recognised (using pseudonym to refer to me.*
- For my personal data to be destroyed after the end of the project.*

I give consent for my personal data to be processed until the end date of the project, approx. [*23 May 2020*]

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(Signed by participant, date)

## **Appendix 12. Information letter and consent form (Key Informants)**

### **Information Letter.**

#### **Key Informants (Teachers, health workers and NGO staff)**

## **Are you interested in taking part in the research project**

**Research Title:** Experiences and coping mechanisms of adolescent mothers and policy intervention programmes to reduce adolescent pregnancies in Manya Krobo District, Ghana.

**Researcher (Principal Investigator):** Prince Abotsi

**Programme:** MPHIL, Global Development Theory and Practice

**Affiliated Institution:** Department of health promotion and Development, Faculty of Psychology, University of Bergen, Norway

**Supervisor:** Wenche Dageid

### Introduction

This is an inquiry about participation in a research project where the main purpose is to find out how adolescent mothers are coping with the challenges of early motherhood and the resources that are available to them. In this letter I will give you information about the purpose of the project and what your participation will involve.

### **Purpose of the project**

The research is in fulfilment of the requirement for the Master of Philosophy in Global Development Theory and Practice.

The purpose of the study is to investigate how adolescent mothers are coping with the challenges of early motherhood and the resources that are available to them. A further aim of the study is to identify alternative programme interventions from the perspective of adolescents on how to help reduce adolescent pregnancy given the continuous rise in adolescent pregnancy in the Manya Krobo district. The study would do an analysis of the current policy interventions in order to identify more effective intervention programmes that could help reduce adolescent pregnancy in the district.

### **Research Objective and Questions**

The objectives of the study is to explore the personal experiences of adolescent mothers and their coping mechanism as well as measures to reduce adolescent pregnancy.

The specific questions the study seeks to answer include;

- What challenges do adolescent mothers face?
- How are adolescent mothers coping and what are the resources they draw on to enable them to manage with teenage motherhood?
- What are the current intervention programmes and policies aimed at addressing adolescent pregnancy?
- How can policy interventions be improved or designed so as to support adolescent mothers and help reduce adolescent pregnancy?

### **Who is responsible for the research project?**

The University of Bergen is the institution responsible for the project.

### **Why are you being asked to participate?**

You as a key informant has been purposively/deliberately selected to participate in this research among other professional as you have been in contact with teenage mothers either from your school, health facility or institution. I believe that working with you on a topic like this will bring your experiences to bear on the issue which will definitely enrich my data as realistic accounts of the phenomenon of adolescent pregnancy and motherhood and the ability of adolescents' access to reproductive health services in the community, will be highlighted. The principal researcher is primarily interested in your experiences with teenage mothers and what in your opinion you think can be done differently to reduce the rate of adolescent pregnancy in your community. The researcher would also interview teachers and health professionals on what their views are on adolescent pregnancy. The information you provide will be very valuable to the final outcome of this research project.

### **What does participation involve for you?**

If you choose to take part in the project, this will involve that you participate in a one-on-one personal interview with the principal investigator which may last approximately 30-45 minutes.

The interview will include questions about your encounter with adolescent mothers, what you think could be contributing to adolescent pregnancy, the challenges that adolescent mothers face and what can be done to reduce the rate of adolescent pregnancy.

The interview will be conducted in a language of your choice and with your permission the interview will be recorded using an audio recording device and later transcribed into text.

### **Participation is voluntary**

Participation in the project is voluntary. If you choose to participate, you can withdraw your consent at any time without giving a reason. All information about you will then be made

anonymous. There will be no negative consequences for you if you choose not to participate or later decide to withdraw.

This include withdrawing from interview sessions at any point or request for any data previously obtained from you to not be included in the study report. You can also choose not to respond to questions you do not feel comfortable responding to. You are also allowed to asked questions during or after interview sessions. You will not get any financial or physical reward for you participation in this study but you will be reimbursed for cost of transportation related to this study if you happen to incur any. You participation is highly appreciated and will be valuable to the final outcome of this study.

### **Your personal privacy – how we will store and use your personal data**

We will only use your personal data for the purpose(s) specified in this information letter. We will process your personal data confidentially and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act).

Any information obtained from you is strictly confidential and your identity will be kept anonymous. You and anyone else mentioned in the interview will be assigned a code name to protect your identity in the final study report and any future publication of this study. The list of names, contact details and respective codes will be stored separately from the rest of the collected data, all audio recordings obtained from you will be stored and transcribed on a secured University of Bergen (UiB) research server and automatically deleted when transcription is completed. All transcribed data gathered from you will be stored on a secured computer and shared with only the supervisor of this study.

Any personal data gathered from you will be in the sole custody of the principal investigator (student) and transferred only to the supervisor in Norway.

### **What will happen to your personal data at the end of the research project?**

The project is scheduled to end *on 23<sup>rd</sup> May 2020*. Upon completion of this study all your personal data and audio recordings from interview will be completely destroyed.

### **Your rights**

So long as you can be identified in the collected data, you have the right to:

- access the personal data that is being processed about you
- request that your personal data is deleted
- request that incorrect personal data about you is corrected/rectified
- receive a copy of your personal data (data portability), and
- send a complaint to the Data Protection Officer or The Norwegian Data Protection Authority regarding the processing of your personal data

### **What gives us the right to process your personal data?**

We will process your personal data based on your consent.

Based on an agreement with the University of Bergen, NSD – The Norwegian Centre for Research Data AS has assessed that the processing of personal data in this project is in accordance with data protection legislation.

**Where can I find out more?**

If you have questions about the project, or want to exercise your rights, contact:

- Department of health promotion and Development, Faculty of Psychology, University of Bergen, Norway

Supervisor : Wenche Dageid

Tel : +4755584849, +4792894326

Email : [Wenche.Dageid@uib.no](mailto:Wenche.Dageid@uib.no)

[Student \(Principal Investigator\) : Prince Abotsi](#)

[Tel : +4740977457](tel:+4740977457)

[Email : Prince.abotsi@student.uib.no](mailto:Prince.abotsi@student.uib.no)

- NSD – The Norwegian Centre for Research Data AS, by email: ([personverntjenester@nsd.no](mailto:personverntjenester@nsd.no)) or by telephone: +47 55 58 21 17.

Yours sincerely,

Project  
Leader

Student (if applicable)

(Researcher/supervisor)

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**Consent form**

I have received and understood information about the project [*Experiences and coping mechanisms of adolescent mothers and policy intervention programmes to reduce adolescent pregnancies in Many Krobo District, Ghana*] and have been given the opportunity to ask questions. I give consent:

- to participate in ( *an interview* )



- For information about me/myself to be published in a way that I cannot be recognised using pseudonym to refer to me.*
- For my personal data to be destroyed after the end of the project.*

I give consent for my personal data to be processed until the end date of the project, approx.  
[23 May 2020]

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(Signed by participant, date)