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FACTORS ASSOCIATED WITH TEEN PREGNANCY IN
CHITUNGWIZA CITY, ZIMBABWE

BY

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REQUIREMENTS FOR THE DEGREE OF MASTER OF PUBLIC HEALTH IN
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Abstract

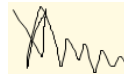
The study sought to analyse the determinants of teenage pregnancy in Zengeza, Chitungwiza. This study used Bandura's Social cognitive theory to deconstruct the determinants of teen pregnancy. In this context, the determinants of teenage pregnancy were decomposed into individual level, socio-cultural and structural factors. Data were collected from a valid sample of 150 participants in Chitungwiza using a structured questionnaire and analysed using the Chi-square test of association in SPSS v26. A significant association between the level of education and teenage pregnancy was found ($X^2(3) = 44.13, p < 0.05$). A non-significant association between knowledge about family planning and teenage pregnancy was established ($X^2(1) = 0.043, p > 0.05$). A statistically significant association between marital status and teenage pregnancy was found ($X^2(3) = 96.62, p < 0.05$). A significant association between the parent's occupation and teenage pregnancy was also found ($X^2(2) = 22.22, p < 0.05$). Additionally, parent and child discussion about sex and reproductive health had a statistically significant association with teenage pregnancy ($X^2(1) = 8.29, p < 0.05$). A non-significant association between the status of the health care facility and teenage pregnancy was found ($X^2(2) = 0.728, p > 0.05$). The study recommended that teaching teenagers on the importance of education and the value of marriage would go a long way in reducing teenage pregnancies in Chitungwiza.

Keywords: Adolescents; Sexual and Reproductive Health; Teenagers; Teen pregnancy.

Declaration

I declare that the dissertation is my original work except where sources have been cited and acknowledged. The work has never been submitted, nor will it ever be submitted to another university for the award of a degree.

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List of Acronyms and Abbreviations

ANC	-	Antenatal Care
COVID 19	-	Corona Virus Disease 19
DHIS	-	District Health Information Systems
PNC	-	Post Natal Care
SPSS	-	Statistical Package of Social Science
UNFPA	-	United Nations Funds for Population Activity
UNICEF	-	United Nations Children's Fund
W.H.O	-	World Health Organization
SDG	-	Sustainable Development Goals

Definition of Key Terms

- Teenager - Someone between the ages of ten to nineteen.
- Teenage pregnancy - When a woman under the age of nineteen gets pregnant.

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CHAPTER 1

1.1 Introduction

The majority of child marriages are a consequence of teenage pregnancies. Several children are getting pregnant before they attain the legal age of majority, which is 18 years in Zimbabwe. There are some consequences associated with child marriages, chief among them maternal mortality and domestic violence. Children born to adolescent mothers are more susceptible to premature birth, low birth weight, and other adverse birth outcomes (Daroch, Woog, Bankole and Ashford 2016). Studies show that teenage pregnancy is mainly due to lack of adolescent-friendly services, inadequate comprehensive sexuality education, non-availability and cost of contraceptives, inadequate health personnel, judgmental attitude of service providers, and inadequate counselling. Many family-related factors such as growing up in a single-parent household or a large family, low parental education, single-parent (divorced or separated) families, and teenage pregnancy of the mother or siblings are known to be associated with teenage pregnancy. The specific factors and beliefs that lead to teenage pregnancy remain uncertain and up to today evidence-based data on individual (knowledge, attitudes, and skills) and environmental (social and structural influences such as social support, reinforcements, and access to contraceptives) determinants of teenage pregnancy are lacking (WHO) (2015). Therefore the study aimed to identify the factors associated with teen pregnancy to assist the policy makers, program managers and healthcare authorities in better decision making, planning and problem solving in Chitungwiza and Zimbabwe at large. Additionally, much of the studies focused on fertility and use of maternal health services are directed

to the general population of reproductive health rather than this specific age group.

1.2 Background of the study

Teenage pregnancy is a serious health and social issue globally and deserves continued attention. Approximately, 16 million adolescents within the age group 15 to 19 and 2 million of those under 15 years give birth annually around the world (United Nations Funds for Population Activity (UNFPA), 2015). Approximately 95% of teen pregnancy occurs in developing countries, making up 11% of births globally. According to the UNFPA (2015), about 10 million unplanned pregnancies are recorded annually among adolescent between 15 and 19 years in developing countries. Of the 5.6 million abortion that occur each year among adolescent girls, 3.9 million are unsafe contributing to the high rate of maternal mortality, morbidity (Daroch, Woog, Bankole and Ashford 2016).

Pregnancy in adolescent contributes to increased risk of maternal mortality and morbidity especially in very young adolescent. Teenage aged between 15 and 19 years have high chances of dying during pregnancy and child birth compared to women in their twenties. Adolescent maternal mortality has been found to be significantly higher among adolescents as compared to those between 20 and 24 years old (Marly, McClendon, Baumgrtner, 2017). According to World Health Organization (WHO) (2015), most of the teenage pregnancy is not planed and therefore unwanted although a few are planned and wanted.

The risk f maternal and neonatal challenges is very high in adolescent pregnancies (Abba, Ali, Fouly&Altrigev, 2017). The challenges which adolescent mothers face

include but not limited to unsafe abortion, hypertensive pregnancy disorders, urinary tract infections and premature rupture of the foetal membranes (Azevedo, Diniz, Fonseca & Evangelista (2015). Adolescent mothers are also exposed to STIs, poor nutrition and anemia, (Najati&Gojazadeh, 2010). The WHO (2016) noted that the number one cause of death among adolescent mothers is the difficulty arising from pregnancy and childbirth.

Teenagers constitute approximately 10% of global birth and they face a lot of challenges during pregnancy and childbearing (WHO, 2014). The rate of adolescents' pregnancies in developing nations ranges from 1 to 299 per births per 1000 girls (World Bank, 2016). The fertility rate of adolescent girls in Sub-Saharan Africa for the girls between 15 to 19 has been found to be 103 girls per 1000. Niger, Mali, Angola and Burundi have fertility rates of 204, 175, 167 and 29 for every 1000 girls (World Bank, 2016).

Zimbabwe has a problem of high teenage pregnancy rates. From the studies carried out by UNFPA (2016), fertility rate in Zimbabwe has been on an increase from 99 live births per 1000. From the studies carried out by UNFPA (2016), fertility rate in Zimbabwe has been on an increase from 99 live births per 1000 women in 2005/6 to 115 live births per 1000 women in 2010/11. High fertility rates among adolescent are associated with higher maternal mortality due to complication from pregnancy and delivery as well as unsafe abortions. Studies done show that there is a high correlation between the age of a mother and maternal mortality and morbidity rate (United Nation Children's Fund (UNICEF), 2012).

Prevention studies identified factors associated with teenage pregnancy. These elements can be classified into socio-cultural, biological, and those related to economic challenges being faced by citizens (WHO, 2014). Sedgh et al., (2012) purported that inadequate reproductive health information increases the chances of teenage pregnancy. In addition, exposure to mass and social media increases the likelihood of early sex which leads to teenage pregnancies.

Even though the government of Zimbabwe has policies aimed at preventing teenage pregnancies, these have remained high especially in Chitungwiza. Therefore, the study aims to analyse the determinants of teen pregnancy to in Chitungwiza. The study also looks forward to assist program managers and health care facilities on how best they can plan to mitigate teenage pregnancies.

1.3 Statement of the problem

Maternal mortality is very high in Zimbabwe at 614 deaths per 100,000 live births. This can be attributed to the high prevalence of teenage pregnancy in Zimbabwe. In Zengeza, Teenage pregnancy is a serious problem. Reports from various clinics health facilities in Chitungwiza have shown that in 2017 out of 11 940 pregnant women who attended reproductive health and child 2549 were teenagers. In 2018 out of 10 826 pregnant women 3040 were teenagers. In 2019 out of 11703, 3820 were teenagers (DHSI 2, 2019). This last quarter of 2020, 1 359 teenagers have attended Antenatal Care (ANC). Although the number of ANC has declined, the figures are still unreasonably high. The decline of the number of ANC can be attributed to COVID -19 lockdown measures.

To cope with the high burden of teenage pregnancy and the associated adolescent mortality, the government of Zimbabwe implemented a range of policies and

programs to combat teen pregnancy. Known interventions include comprehensive sexuality education that is age appropriate, youth friendly corners, youth friendly clinical sexual reproduction health service provision and legal age of getting married. Despite these public health and social interventions, teen pregnancy remains very high at 24 % (Naomi, Wekwete, Rusakaniko & Zimbizi 2016).

Furthermore, more young girls continue to be engaged in child marriages. Early sexual debut exposes girls to HIV and sexually transmitted infections (STIs). Additionally, adolescents usually lack the power to negotiate safer sex (UNESCO, 2013). Teenage pregnancy is also associated with other problematic behaviour such as early initiation of sexual activity, Alcohol abuse is a major driver of irresponsible sexual behavior among young people. After the consumption of these illicit brews youths (boys & girls) become uncontrollable and to that end they cast a blind eye on their responsibilities by indulging into sexual activities. Registered and unregistered bars/ beer halls) sell alcohol to young people especially in high density areas such as Chitungwiza.

1.4 Research Objectives

1.4.1 Overall objective

To identify the factors associated with teen pregnancy in Chitungwiza.

1.4.2 Specific objectives

- i. To evaluate the individual level determinants of teenage pregnancy in Chitungwiza.
- ii. To explore on the structural factors that influence teen pregnancy in Chitungwiza.

- iii. To investigate on the perceptions and experiences of socio-cultural factors that affect teen pregnancy in Chitungwiza.

1.5 Research Questions

- i. What are the individual level determinants of teen pregnancy in Chitungwiza?
- ii. In what way do structural factors influence teen pregnancy in Chitungwiza?
- iii. What is the relationship between socio-cultural factors and teen pregnancy in Chitungwiza?

1.6 Assumptions

All the participants were teenagers who were pregnant and teenage mothers.

1.7 Justification of the study

Various stakeholders may find this study to be useful. The study might be of benefit to health practitioners and those in the education sector including researchers and academicians. Identification of the determinants of teen pregnancies may assist parents and children to value the important of discussions on sex and reproductive health. Additionally, the study might assist in the formulation of health education and information dissemination on the dangers of early pregnancies.

This study also noted that the major findings would lead to recommendations that could enable the Government of Zimbabwe and its stakeholders to review and strengthen the measures being implemented to reduce teen pregnancies and consequently maternal mortality. This might help to identify the girls at risk of

teen pregnancy and early interventions are taken to reduce this public health problem. The reduction in teenage pregnancy could be instrumental in assisting the government in achieving its National Development Strategy 1 and the global Sustainable Development Goals.

1.8 Delimitation

The study was carried out in Chitungwiza City focusing on determinants of teenage pregnancies. The participants for the study were drawn from four districts namely Seke North, Seke South, Zengeza and St Marys. The inclusion of all the districts was meant to make sure that attention was devoted to participants from Chitungwiza urburn.

1.9 Limitation

The research study encountered challenges with time and place of data collection. Since adolescents between the ages of 10 and 19 were targeted, it was not always obvious that all those who came to the clinics during the data collection period would participate. Some participants had no time to spare for the research. The study was conducted in 2021 alone and cross sectional in nature. Future studies may carry out longitudinal studies to evaluate if there are changes in the determinants of teen pregnancy because of policy intervention. The research required financial resources which were not readily available. These costs included internet, printing and traveling. The researcher used her personal savings to fund the research.

CHAPTER 2 REVIEW OF RELATED LITERATURE

2.1 Introduction

The chapter aims to review and examine numerous selected literatures that have been identified to be influencing factors of teenage pregnancy. Topics discussed in this chapter covered relevant literature on teen pregnancy. Findings of the literature review are mainly presented according to the construct of the conceptual framework guiding this study. The study reviewed literature on maternal and adolescent health in Zimbabwe, global trends in teenage pregnancy, burden of teenage pregnancy in Zimbabwe and theories associated with teenage pregnancy.

2.2 Methods used to identify relevant literature

The main body of literature concerning the determinants of teen pregnancy will include mostly peer reviewed articles found on electronic data base such as Pub Med, Science Direct, Scopus, Google scholar. Additional literature will be obtained from a search ‘of grey’ or not listed literature such as documents, reports abstract with the assistance of freely available search engines such as Google.com.co.zw. UN family and other websites.

2.3 Overview of reproductive, maternal and adolescent health in Zimbabwe

Zimbabwe implemented the ICPD action plan through various policies including the national reproduction health policy, Zimbabwe National HIV and AIDS Strategic Plan, National health strategy the Educational Policy and Adolescent Sexual Reproductive Health Strategy.

The goal of the ASRH was to advance the sexual reproductive health of the youths in Zimbabwe. Additionally, more emphasis was placed on safer sexual and

reproductive health activities. These activities include protected sex, avoidance of multiple partners, and HIV and AIDS screening (Marimo, Evelyn, Muchabaiwa and Siziba, 2015). Barriers that aggravate (ASRH) results include shortage of social and behavior change communication (SBCC) materials and inadequate outreach services due to exorbitant transport costs to health facilities.

2.4 Global trends in teenage pregnancy

According to WHO (2013), a total of 1 million and 16 million girls in the age groups 10 to 11 years and 15 to 19 years give birth every year and most of them come from developing nations. The United States recorded the highest birth rates among teenagers of all developed countries (CDC, 2016). In the United States, in 2016, those in the age group of 15 to 19 years gave birth to about 250 000 babies and the birth rate was estimated to be 24.2 per 1000. The rates vary according to ethnic, geographic and education characteristics of the population (CDC, 2016).

In Europe, England and Wales recorded 871038 teenage pregnancies (below 18 years) in 2014 and the 4160 for those below 16 years. The Sub-Saharan Africa region has an average adolescent fertility rate of 103 per 1000 girls aged between 15 to 19 years. Among African countries Niger is leading with adolescent fertility rate of 204 per 1000 girls, followed by Mali with 175 per 1000 girls, Angola comes third with 167 per 100 girls. Burundi is the lowest at 29 per 1000 girl. (World Bank, 2016).

2.5 Burden of teenage pregnancy in Zimbabwe

Teenage pregnancy hinders the ability of girls to realize their dreams. Early sexual debut and abuse increase the risk unintended pregnancies among adolescents. The

Herald of June 5, 2015, reported that Zimbabwe is one of the 40 countries in the world in with an unacceptability high rates of child marriage where girls enter marriage before the age of 18 years. According to Multiple Indicator Custer Survey (2014), 32.8 % of women between 20 and 49 were married before the age of 18. Bulawayo chronicles October 2020 reported a sharp increase in the number of teenage pregnancy involving girls as young as 12 years. According to statistics from Mpilo Hospital, children from 12 to 16 years now account for about 30% of delivery.

Despite mental immaturity, teenagers have under developed pelvises which increase the risk to obstructed labor, maternal death, paralysis and obstructed fistula.

2.6 Concepts, constructs and theories associated with teenage pregnancy

2.6.1 Evolution theory

The evolution theory focuses on the psychological elements that have been developed through natural selection. Socio-biologists view human sexual behaviors as the product of natural selection in evolution and thus view these behavioral patterns as being genetically controlled. Contemporary evolutionary theories view behavior as the result of an interaction between mechanisms and environmental influence

2.6.2 The Bronfenbrenner Ecological systems theory

The human ecology theory was developed by Bronfenbrenner in 1979. It explains that human development is a function of his or her association with the environment. This environment encompasses elements such as parents, school,

society, culture, and relatives. The scholar identified five environmental systems an individual interacts with, and these are as microsystem, mesosystem, exosystem, macrosystem and the chronosystem (Bronfenbrenner, 1979).

The microsystem (the initial level) consists of institutions and groups that are closest to an individual and have direct contact they include home, day care, school, friends and church. The mesosystem is the second category and is made up of bi-directional interactions between the microsystems (Yamaguchi & Kandel, 1987). Education is considered at this level provides a setting in which persons interact. Exosystem considers the linkage between social settings which indirectly affect the individual. The macrosystem describes the culture (social economic status, poverty, ethnicity) in which an individual stay and all other systems that affect them. According to Santrock (2007), the chronosystem is made up of the lifetime individual experiences.

2.7 Theoretical framework

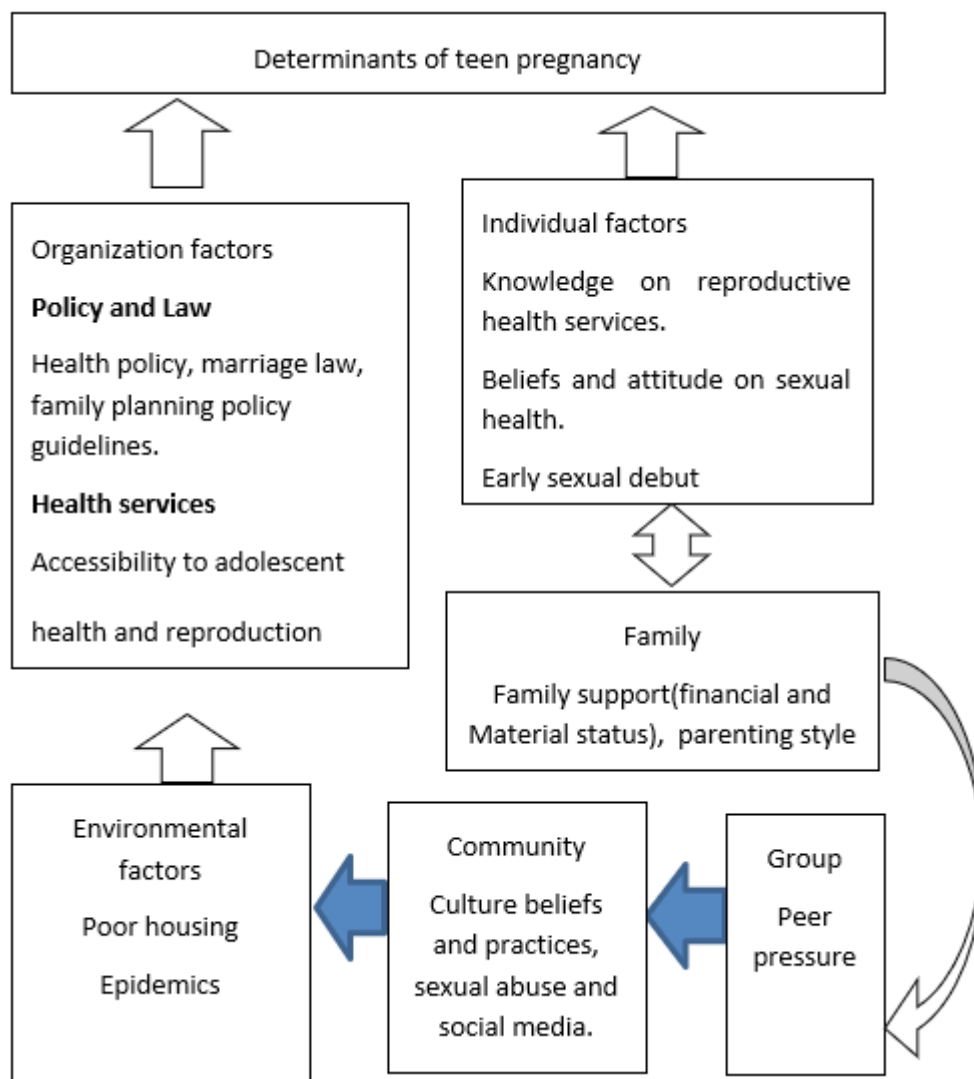
In assessing determinants of teenage pregnancy in Chitungwiza, the social cognitive theory was used. Social cognitive theory will be used because it is connected to the problem and also provide a building block of undertaking this study.

2.8 Relevance of theoretical framework

Bandura Social cognitive theory (1977) states that individual behavior is shaped through observing and interacting with the environment. There is a direct relationship between personal and environmental factors. In the context of the social cognitive theory, individuals learn from their own experiences and from the experiences of their association with others. Therefore, to reduce teenage pregnancies in Chitungwiza, there is a need to deal with the variables that

influence adolescent perspectives on sex. The diagram below illustrates the determinants of teen pregnancies.

Figure 1.1: Conceptual framework on determinants of teen pregnancy



Source: Author’s development (2021)

2.9 Determinants of teen pregnancy

2.9.1 Individual level factors influencing teen pregnancy

Individual level factors affecting teenage pregnancy may have a negative effect on the girl’s sexual related choices (Farber, 2009). Shrestha (2012) explored the determinants of teenage pregnancy in Nepal. Among the individual level factors

were knowledge, risk perception on sexuality, attitudes, educational status, age at marriage, age at first sexual intercourse, substance abuse, health seeking behaviour and number of sexual partners. This study reviews some of these factors in the next paragraphs.

2.9.2 Lack of knowledge

Sexual education is one of the calls made to government to promote the wellbeing of teenagers in the ICPD program of action (UNFP 2004). Studies have reported that comprehensive sex education is effective in reducing sexual risk among adolescents (Fonner, et al, 2014). Access to correct information about sex and reproductive health is important if one is to maintain a sound sex and reproductive health. Thato (2013) showed that secondary level students who had been taught sex education had greater knowledge compared to their counterparts. A study conducted in Philippines by WHO (2003) concluded that there is a clear relationship between knowledge and pregnancy. As noted by Achary, (2018) in their qualitative research among seventy-eight 14- 17 years old adolescents, limited communication about SRH between teachers and students persists. This reticence is due to both students and teachers being too shy and embarrassed to talk about sex and sexual health (Achary, 2018). The findings showed that two out of every ten young women gave birth before the age of 20. Interesting finding was revealed by Kumwenda and Vwalika (2017) who established that exposure to sex education at some point was significantly associated with and protective factor for adolescent pregnancy. In Nigeria, Adogu et al. (2014) established that there was low condom usage among adolescent probably due to limited education about sex and reproductive health.

2.9.3 Early sexual debut

WHO (2011) noted that adolescents engage in sexual behaviour between 15 and 19 years. Malisa (2015) noted that many teenagers in Tanzania become sexually active at early stages, and this increases the chances of getting pregnant. Similarly, Agori, et al., (2013) argued that the same happens in Nigeria. In South Africa, Mothiba and Maputle (2012) established that about 54% of teenagers in Limpopo between 16 and 19 years had engaged in sex. These studies suggest that teenagers engage in early sexual debut, and this increases the chances of pregnancies.

2.9.4 Risky sexual behaviours

Adolescence is a phase of rapid physical, psychological and social changes from childhood to adulthood (WHO, 2014). The individual experiences an upsurge of sexual of sexual feelings following the latent sexuality of childhood (WHO, 2014). A study done in Nepal, found that even though some young people are aware of the risks when practicing unprotected sex, they still continue with the sexual activity (Shrestha, 2012). Similarly, Mushwana et al., (2015) established that in Giyani, South Africa, teenagers engage in sexual activity were aware of the risk of contracting STIs. Similarly, in South Africa unsafe sex practice among other consequences is associated with high alcohol use by youth (Seggie, 2012)

2.9.5 Interpersonal factors influencing teen pregnancy

This section reviews literature on the cultural beliefs, parental influences as well as peer pressure how these factors affect teenage pregnancies. Shrestha (2012)

noted that parental values and communication with the teenagers have a direct effect on teenage pregnancy.

2.9.6 Cultural factors

Most cultural norms prevent discussion of Sex and Reproduction Health (SRH). Inability to discuss these aspects with teenagers would result in limited comprehension of the dangers of early sexual engagement. Ruto (2015) in Kenya established that guardians fail to disseminate enough information on sex and contraception because it is considered culturally inappropriate. Mthiba and Mapotle (2012) found out that parents were did not want to talk about sex education and contraceptives to their teenagers as they were afraid that they would give them a green light to engage into sexual activities. Adolf (2014) noted that in some settings, it is a taboo to discuss about sex. In the same vein, Roudsari (2013) also noted that one challenge which the youths face is that of limited discussions with adults on sex.

2.9.7 Parenting style, and values and communication

Ogori et al., (2013) highlighted that conversation between parents and their teenagers is helpful in delaying early sexual initiation. Teenagers who always discuss about sex and reproductive health with their parents are less likely to be involved in early sexual activity (Malisa, 2015). Adolf (2014) suggested that parents do not give adequate information to their children about sex and reproductive health and this exposes them to other sources of information which may be misleading. According to Ellis (2013), the father's absence had a greater impact on their daughter's sexual activity and teenage pregnancy than other

behavioural or mental problems or academic achievement. This shows the importance of father's involvement and responsibility in raising their child.

2.9.8 Structural factors influencing teen pregnancies

Structural factors have an influence on teenage pregnancy. These include but not limited to economic, policy and organizational environment.

2.9.9 Poverty

Poverty has been found to have a negative effect on the behaviour of girls in many studies. Flanagan et al. (2013) noted poverty contributes to teenage pregnancy. Shaw (2009) reported that poverty leads to inaccessibility of contraception, unsafe abortions, STIs and HIV as well as infant mortality. There is a strong correlation between poverty and teenage pregnancy (Nkwanyana, 2011). Achary (2018) explained that socio-economic status, educational attainment, cultural factor and family structure were all identified as risk factors for teenage pregnancies in South Asia.

2.9.10 Health system factors

A Sexual and Reproductive health service is described as an organisational factor influencing teenage pregnancy (Shrestha, 2012). Holt et al., (2012) established that shortage of health facilities affected teenage pregnancy in Soweto, South Africa. Suneth (2012) was of the view that the youths in Botswana fail to utilize SRH services due lack of confidentiality when they visit the clinics.

2.10 Chapter summary

This chapter covered the review of literature.. In the next chapter methodology that will be used in the study will be discussed.

CHAPTER 3 METHODOLOGY

3.1 Introduction

This chapter outlines the research design adopted to evaluate the determinants of teenage pregnancy in Chitungwiza. The chapter begins by looking at the research design, population, and sample as well as the sampling techniques. The chapter also evaluated the data collection instruments together with the data analysis procedure. Ethical issues have also been highlighted as part of the methodology.

3.2 Research Design

A research design is a plan which shows how the research would be undertaken. A cross-sectional quantitative research design was adopted. In this case, data was analysed quantitatively using various statistical approaches.

3.3 Population and sampling

3.3.1 Study population

This study targets the population made up of girls aged between 10 to 19 years who are pregnant and teen mothers from Zengeza 3, St Mary's clinic, Seke South Clinic and Seke North Clinic attending antenatal care and postnatal care. A control group of participants in the age 10-19 was also chosen in order to make meaningful comparisons of teenage pregnancy. Study participants will be taken from Antenatal Care records (ANC) and teen mothers who come for Post Natal Care (PNC) at the four clinics in Chitungwiza. The sample size was calculated by using a proportion of 15.3% taken from Chitungwiza Town DHIS report of 2020. Using a margin of error of 5% at the precision of 95% confidence interval.

3.3.2 Sample size

The following formula was applied to determine the target sample size (Goyal, 2013).

$$n = \frac{p(100-p)}{e^2}$$

Where **n** = Ideal size (Sampling size)

P = Proportion (15.3%)

e = Standard error (2.5)

Therefore $n = 15.3 (100-15.3) = 15.3 \times 84.7 = 207.3$

$(2.5)^2 = 6.25$

$n = 207$ Respondents.

3.3.3 Sampling procedure

Adolescents who come for ANC and PNC were purposively selected by nurses and briefly informed about the study. The nurses' staff were fully aware of the inclusion and exclusion criteria. Interested participants were referred to the research assistants stationed in the clinic who then provided them with more details after which they decide whether they participate voluntarily or not. The eligibility for participation was teenagers coming for ANC and PNC aged 10-19 years, control group 10-19 years who are not pregnant and who had obtained permission from their parents or legal guardian to participate in the study through signing an informed consent.

3.3.4 Inclusion and exclusion criteria

The study will only include young girls aged 10-19 years who are pregnant coming for ANC and PNC visits at Zengeza 3 clinic, St Mary's clinic, Seke North Clinic and Seke South clinic and control group ages 10-19 years who are not pregnant at the time of the study.

3.4 Data Collection Instruments

The researcher used a questionnaire to collect information from the respondents. All questionnaires were prepared in both English and Shona languages and then distributed via reproductive health service providers to the respondents who made themselves available at the clinic for ANC and PNC service.

3.5 Dependent variables

The dependent variable for the study was teen pregnancy. The variable was operationalised as follows: It was coded as 1 if a participant was in the target category of 10-19 years and 0 if a participant was in the reference group of 10-19 who are not pregnant. In this case, teen pregnancy was a binary variable.

3.6 Independent variables

Based on a literature review, several variables as possible factors associated with teenage pregnancy will be chosen. These were obtained from Bandura's Cognitive Theory. The individual factors chosen were the level of education, marital status family planning knowledge of the participants. Socio cultural determinants of teenage pregnancy were parent/guardian occupation, parent-child discussion on sex and reproductive health and income. On structural determinants of teenage pregnancy, the status of health facility was used as a proxy.

3.7 Pilot study

Wording and paraphrasing of the questionnaire were verified by experts to ensure validity and reliability.

3.8 Data collection and procedures

The questionnaire was first be pre- tested and adjusted accordingly. Time needed to administer the questionnaire was established.

3.9 Analysis and organization of data

Quantitative data analysis techniques were employed in this study. After data cleaning, it imported in IBM SPSS Statistics v 26. Careful data coding was conducted to make sure that all entries were correct. Descriptive statistics were requested and well as frequency distributions. Tables and other forms of visualization were used. The Chi-square test of independence was used to evaluate the relationship between individual, socio-cultural and structural determinants of teenage pregnancy in Chitungwiza.

3.10 Ethical considerations

The research will first seek for clearance from the Chitungwiza town council and approval from AUREC before commencement of the study.

Informed consent will be given to the research participants before the commencement of the research.

Privacy and confidentiality of the information obtained was assured throughout the research. At no point during the research process were the actual names of respondents be mentioned.

3.11 Summary

This chapter described the steps followed to answer the research questions. The sampling was also surfaced in this chapter where the researcher will adopt the purposive sampling. Data gathering techniques, ethical consideration and data analysis were clearly discussed in this chapter.

CHAPTER 4 DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

4.1 Introduction

After collecting the required data for the research topic, the next step was to clean the data and perform a preliminary analysis followed by the final analysis of the results. In this chapter, the researcher presents, analyzes, and discusses the results of the study. As guided by the structure and layout of the research instrument, demographic results are presented first. Later, the chapter highlights major findings on the factors associated with teenage pregnancy in Chitungwiza, Zimbabwe. To achieve this, the Chi-Square test of independence was used, together with the measures of association. The determinants of teen pregnancy were divided into individual level, socio cultural and structural factors. Variables in each group were cross tabulated against the teen pregnancy variable to evaluate the strength of the relationship.

4.2 Response rate

The respondents for the study were classified by location as a way of giving equal access to all the individuals in various residential locations. The results of the response rate are shown in Table 4.1 below.

Table 4. 1 Response rate by location of participants

Location	Target sample (n)	Actual sample (n)	Response rate (%)
Low	50	25	50
Medium	72	55	76
High	85	70	82
Total	207	150	72

Source: Raw data.

The overall response rate for the study was 72%. This high response rate could be attributed to the fact that the questionnaire was first tested for face and content validity before final deployment to the respondents. This ensured that all questions were easy to understand to most of the respondents. Some questions were rephrased to improve clarity. As noted in the previous chapter, the questionnaire was coded and sent out to respondents using Google Forms. This was the best way to avoid contact with respondents since the data was collected during the COVID-19 pandemic era.

4.3 Demographic characteristics of respondents

This section analyzes the results on the demographic characteristics of the participants. The demographics evaluated include the level of education, religion, income, marital status, family planning method used, nature of first sexual encounter and whether one has ever heard of sexual reproductive health or not. The results of the demographics are presented in table 4.2 below.

4.3.1 Level of education of the respondents

The participants were required to state their level of completed education. Four categories were considered and these are no formal education, primary, secondary and tertiary level. The sample was dominated by participants who suggested that they reached the primary level. Additionally, those without formal education and those who reached the tertiary levels constituted about 19.3% each. The level of education of the participants was worrisome since the majority of the participants had lower levels of education. Therefore, efforts should be put in place to make

sure that parents educate the girl child. In addition, donor organisations should also increase their voice to make sure that the girl child is given equal educational opportunities.

4.3.2 Religion of participants

Religion is very important because it shapes the future of many individuals due to the teachings which people receive. The majority of the participants indicated that they were Christians while the rest belonged to the Muslim, ATR and other religious categories. If the sample is a true representation of what obtains at national level, it could be suggested that the majority of people in Zimbabwe are Christians. Therefore, intervention strategies that are meant to end teenage pregnancies in Zimbabwe should mainly target Christian organizations. These organizations can be used as advocates for ending teenage pregnancies. In Zimbabwe, some Christian organizations such as the Apostolic Sect, need a lot of teaching to end child marriages since these lead to teenage pregnancies.

4.3.3 Income levels of participants

About 54.7% of the participants reported that their income levels were below USD100 per month. Only 23% had monthly incomes above USD150 and the remainder were between USD100 and USD150. These findings reveal that most of the participants are poverty stricken and cannot afford the basic necessities of life. When incomes levels are low, chances are high that girls would turn to other activities such as prostitution.

4.3.4 Marital status of participants

Marital status of the respondent was another individual level factor considered in this study and the results are presented in table 4.2 below. About 48% of the respondents were single while 27.3%, 17.3% and 7.3% married, separated and widowed respectively. These results indicate that the majority of the participants were singles. Marital status is important because it portrays information about the nature of lifestyle one is leading.

4.3.5 Family planning method used

The study also requested the participants to state the family planning methods they were currently using. The results show that the participants utilized family planning methods at the time of the research. About 43% of the participants indicated that they were currently using the Jeedele as their preferred family planning method. However, the Depo-Provera was the least utilized method of family planning.

4.3.6 Nature of first sexual encounter

Participants were also required to describe the possible nature their first sexual encounter using three categories, namely forced sex, willingly (consensual) and peer pressure. The majority of the participants indicated that their first sexual encounter was as a result of agreement between the two parties. In other words, it was consensual sexual encounter. However, it can also be noted that some of the participants engaged in sex due to peer pressure and forced act. While forced sex does take place among the teenagers, very few would come forward to make

reports to the authorities. Rape clinics have a role to play in protecting the girl child when they come forward to report forced sexual activities.

4.3.7 Ever heard of sex and reproductive health

Sexual reproductive health was another important aspect in this study. The majority of the participants indicated that they had ever heard of the term sexual reproductive health. This study noted that such knowledge is important since it can also be used as a starting point to educate the youths on the dangers of teenage pregnancies.

4.3.8 Ever heard of family planning

Family planning was another important aspect closely related to the concept of teenage pregnancy. Participants were also asked if they had ever heard of the term family planning. As in the case of sexual reproductive health, a higher proportion of the participants indicated that they had ever heard of the term family planning. Chances are high that information about family planning is readily available to teenagers. Hence, the participants had basic knowledge about family planning.

Table 4. 2: Demographic characteristics of respondents

Variable		N =150	N (%)
Education	No formal education	29	19.3
	Primary	57	38.0
	Secondary	35	23.3
	Tertiary	29	19.3
Religion	Christianity	113	75.3
	Muslim	20	13.3
	ATR	11	7.3
	Other	6	4.0
Income	<\$50	51	34.0
	\$51-\$100	31	20.7

	\$101-\$150	33	22.0
	>\$150	35	23.3
Marital status	Single	72	48.0
	Married	41	27.3
	Separated	26	17.3
	Widowed	11	7.3
Family Planning Method used	Pill	38	25.3
	Jadelle	64	42.7
	Depo-provera	8	5.3
	Condom	40	26.7
Nature of First sex	Forced	27	18.0
	Willing	64	42.7
	Peer pressure	59	39.3
Ever Heard of Sex & reproductive health	Yes	134	89.3
	No	16	10.7
Ever Heard of Family Planning	Yes	132	88.0
	No	18	12.0

Source: Raw data.

4.4 Age at first sexual encounter and first child

Respondents were also required to state their age at first child and first sexual encounter. Since these were scale variables in IBM SPSS, descriptive statistics were requested. The showed that the teenagers engage in sexual activity at an early age such as 13 years. Additionally, some of the respondents indicated that they fell pregnant at the age of 14 years. The average age at first sexual encounter was 14.1 years while the average age at first child was 16.3 years. These results suggest that the teenagers in the district engaged in sexual activities at very early years.

Table 4. 3: Descriptive statistics of sexual behavior

Descriptive Statistics					
	N	Min	Max	Mean	Std.

					Deviation
Age at first child	150	14.0	19.0	16.3	1.775
Age at first sexual encounter	150	13.0	15.0	14.1	.8039
Valid N (listwise)	150				

Source: Raw data.

4.5 Sources of information on sex, reproductive health and family planning

Respondents were also required to state their main source of information about sex, reproductive health and family planning. In this research study, the main sources of information considered were peers, health facility, school teacher, religious leaders, radio and parents. With regards to family planning, three major sources of information have been highly rated, with ratings above 70%. Teenagers largely rely on information from peers, health facilities and religious leaders. However, school teachers and parents were the least rated sources of information about family planning. It can be suggested that teenagers believe that the information they get from their peers is very reliable as compared to other sources, and they are highly likely to act on it. The education curriculum should also make sure that family planning concepts are mastered as a first step in educating teenagers on the dangers of teenage pregnancies.

The participants were also required to provide responses on the sources of information about teenage pregnancies. Concerning the information sources about teenage pregnancy, the research study noted that peers and health facilities topped the list. This study argues that, peers play a very important role especially in giving information to their friends. Educational campaigns which are meant to

disseminate information among the youths are very important in the prevention of teenage pregnancies.

As part of this research study, it was important to determine the knowledge of the participants on the common family planning methods known to participants. All the methods had more than 85% rating. The most and least common methods were the condom and the depo-provena respectively. As a way of reducing teenage pregnancies, the study encourages teenagers to make use of family planning methods.

Table 4. 4: Multiple response sets on sources of information and family planning methods known

		N=150	N (%)
Family planning information source	Peers	137	91.3
	Health facility	124	82.7
	Religious leader	114	76.0
	Radio	88	58.7
	Schoolteacher	79	52.7
	Parents	41	27.3
Family planning method known	Condom	149	99.3
	Pill	139	92.7
	Jadelle	136	90.7
	Depo	130	86.7
Teenage Pregnancy information source	Peers	143	95.3
	Health facility	133	88.7
	Schoolteacher	126	84.0
	Radio	103	68.7
	Parents	101	67.3

Source: Raw data.

4.6 Individual level determinants of teenage pregnancy

This section evaluates the individual level determinants of teenage pregnancy in Chitungwiza. Individual level determinants of teenage pregnancy considered in this study include the level of education and knowledge of family planning methods of the participants.

4.6.1 Relationship between education and teenage pregnancy

To evaluate the nature and strength of the relationship between education and teenage pregnancy, a Chi-square test of independence was requested through the cross-tabulation procedure. The results in table 4.5 below revealed that those who were in the age group of 10 to 19 years were regarded as teenager mothers while the other 10-19 age used as the control group have never fallen pregnant before. The responses for the two groups were compared against each other based on the factor/variable of interest. Looking at the marginal totals, 63.3% and 36.7% of the participants. A closer inspection of the results reveals that about 75.9% of those with no formal education and about 89.5% of those who completed primary level were teenage mothers. On the other hand, for those who completed secondary and tertiary levels, about 68.6% and 62.1% of were not pregnant. These results show that education is very important in the determination of teenage pregnancies. The level of education of the teenager mothers was very low as compared to that of the non-pregnant teenagers.

A chi-square test of independence was conducted comparing the level of education and teenage pregnancy in Chitungwiza. A significant association between the two variables was found ($X^2(3) = 44.13, p < 0.05$). These results

indicate that education and teenage pregnancy have an association. It can be suggested that lower levels of education are associated with higher levels of teenage pregnancies.

A phi coefficient of 0.530 (53%), $p < 0.05$ and a Cramer's V of 0.53 (53%), $p < 0.05$ suggest a statistically significant strong association between education level and teenage pregnancy. Chances are high that according teenagers the right education could lead to a decrease in the prevalence of teenage pregnancies in Chitungwiza. The findings of the current study are in line with suggestions by Kassa, *et al.*, (2018) who observed that lower levels of education have a significant influence on the prevalence of teenage pregnancies.

Table 4. 5 Chi-square test of association for level of education and teenage pregnancy

			Education				
			No formal education	Primary	Secondary	Tertiary	Total
Age	10-19	Count	22	51	11	11	95
		% within Age	23.2	53.7	11.6	11.6	100.0
		%within Education	75.9	89.5	31.4	37.9	63.3
(Not pregnant)	10-19	Count	7	6	24	18	55
		%within Age	12.7	10.9	43.6	32.7	100.0
		%within Education	24.1	10.5	68.6	62.1	36.7
Total		Count	29	57	35	29	150
		%within Age	19.3	38.0	23.3	19.3	100.0
		%within Education	100.0	100.0	100.0	100.0	100.0

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	42.133 ^a	3	.000
Likelihood Ratio	44.662	3	.000
Linear-by-Linear Association	24.434	1	.000
N of Valid Cases	150		

a. 0 cells (0.0) have expected count less than 5. The minimum expected count is 10.63.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.530	.000
	Cramer's V	.530	.000
	Contingency Coefficient	.468	.000
N of Valid Cases		150	

Df Degrees of freedom

Source: Raw data.

4.6.2 Relationship between family planning knowledge and teenage pregnancy

Family planning knowledge was another individual level factor used in this study. A cross tabulation of teenage pregnancy and knowledge of family planning was requested as shown table 4.6 below. The variable, ever heard of family planning was used as a proxy for a participant's knowledge about family planning. As previously noted, 88% of the participants suggested that they had ever heard of the term family planning. Out of those who heard about family planning, 63.6% were teenager mothers and 36.4% teenagers who have never had pregnancy before. On the other hand, 12% reported that they never heard of family planning. Out of those who never heard of family planning, 61.1% were teenager mothers while 38.9% were not teenage mothers.. Thus, there was roughly an equal proportion of teenagers who reported that they heard of teenage pregnancy and those who did not hear about teenage pregnancy. The same distribution also applies those who had never had pregnancy.

A chi-square test of independence was conducted comparing the knowledge about family planning and teenage pregnancy in Chitungwiza. A non-significant association between the two variables was found ($X^2(1) = 0.043, p > 0.05$). These

results indicate that knowledge of family planning and teenage pregnancy did not have an association. It can be suggested that teenagers still get pregnant even if they have knowledge about family planning methods. In other words, knowledge on family planning alone was not enough, it should be coupled with other materials such as training and workshops on the dangers of teenage pregnancy.

The phi coefficient of 0.017 (1.7%), $p>0.05$ and a Cramer's V of 0.017 (1.7%), $p>0.05$ suggested a non-significant association between knowledge on family planning and teenage pregnancy. These results suggested that knowledge of family planning methods is not associated with teenage pregnancies in Chitungwiza. However, Yakubu & Salisu (2018) noted that lack of comprehensive sexuality education among teenagers is one variable which results in increased reports of teenage pregnancies in Sub-Saharan Africa.

Table 4. 6 Chi-square test of association of ever heard of family planning and teenage pregnancy

			Heard of Family Planning		
			Yes	No	Total
Age	10-19	Count	84	11	95
		% within Age	88.4	11.6	100.0
		% within Heard of Family Planning	63.6	61.1	63.3
	10-19 (not pregnant)	Count	48	7	55
		% within Age	87.3	12.7	100.0
		% within Heard of Family Planning	36.4	38.9	36.7
Total	Count	132	18	150	
	%within Age	88.0	12.0	100.0	
	%within Heard of Family Planning	100.0	100.0	100.0	

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.043 ^a	1	.835		
Continuity Correction ^b	.000	1	1.000		

Likelihood Ratio	.043	1	.835		
Fisher's Exact Test				1.000	.513
Linear-by-Linear Association	.043	1	.835		
N of Valid Cases	150				

a. 0 cells (0.0) have expected count less than 5. The minimum expected count is 6.60.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.017	.835
	Cramer's V	.017	.835
	Contingency Coefficient	.017	.835
N of Valid Cases		150	

4.6.3 Relationship between marital status and teenage pregnancy

Marital status of the respondent was another individual level factor considered in this study and the results are presented in table 4.7 below. Of those who were single, 93.1% were teen mothers while 6.9% teen mothers who had never fallen pregnant. Of those who reported that they were married, 2.4% were teenagers and 97.6% were seniors. Without considering those who reported that they were separated these results suggest that there is a strong association between marital status and teenage pregnancy. Most of the teenagers reported that they were not married while the seniors were married.

A chi-square test of independence was conducted comparing the marital status of the participants and teenage pregnancy in Chitungwiza. A statistically significant association between the two variables was found ($\chi^2(3) = 96.62, p < 0.05$). These findings reveal that marital status and teenage pregnancy have a significant association. Chances are high that teenagers who get pregnant early would end up

being single parents. Thus, a lot can be done to prevent teenage pregnancies in the district.

A phi coefficient of 0.803 (80.3%), $p < 0.05$ and a Cramer's V of 0.803 (80.3%), $p < 0.05$ suggested a significant strong association between strong association between marital status and teenage pregnancy. In the context of this study, it could be suggested that educating the girl child on the importance of a proper marriage could lead to the reduction in the cases of teenage pregnancies. When teenagers value marriage, they would not engage in unhealth relationships which lead to teenage pregnancies. These results are congruent with previous suggestions by Kassa et al., (2018) who noted that parent to adolescent communication about sexual reproductive health is important in reducing teenage pregnancies.

Table 4. 7: Marital status and teenage pregnancy cross tabulation

			Marital status				
			Single	Married	Separated	Widowed	Total
Age	10-19	Count	67	1	21	6	95
		% within Age	70.5	1.1	22.1	6.3	100.0
		% within Marital status	93.1	2.4	80.8	54.5	63.3
	10-19	Count	5	40	5	5	55
		% within Age	9.1	72.7	9.1	9.1	100.0
		% within Marital status	6.9	97.6	19.2	45.5	36.7
Total		Count	72	41	26	11	150
		% within Age	48.0	27.3	17.3	7.3	100.0
		% within Marital status	100.0	100.0	100.0	100.0	100.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	96.628 ^a	3	.000
Likelihood Ratio	110.813	3	.000
Linear-by-Linear Association	10.943	1	.001
N of Valid Cases	150		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.03.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.803	.000
	Cramer's V	.803	.000
	Contingency Coefficient	.626	.000
N of Valid Cases		150	

4.7 Socio-cultural determinants of teenage pregnancy

Three important variables have been used as the proxy for social cultural determinants of teenage pregnancy. These variables are parent or guardian occupation, parent child discussion on teenage pregnancy and the income level of the participants.

4.7.1 Relationship between parent/guardian occupation and teenage pregnancy

Usually, the parents' occupation is an important indicator of the socio-economic status of the family. As shown in table 4.8 below, a greater proportion of the participants indicated that their parents were unemployed, (about 38%). However, about 34.7% reported that they were formally employed and the remainder being self-employed. A closer inspection of the results shows that about 61.5% of those formally employed were parents of teenagers who were not pregnant while only 38.5% of the teenagers' parents who were teen mothers not formally employed. The majority of who were unemployed (80.7%) were the parents of the teenage mothers. These results suggest that teenage pregnancies have a relationship with the occupation of the parent, with teenagers coming from families with unemployed parents being prone to the risk of teenage pregnancies.

A chi-square test of independence was conducted comparing the parent/guardian's occupation and teenage pregnancy in Chitungwiza district. A statistically significant association between the two variables was found ($X^2(2) = 22.22, p < 0.05$). The implication of these results is that parent/guardian occupational status is associated with the prevalence of teenage pregnancies in Chitungwiza.

A phi coefficient of 0.385 (38.6%), $p < 0.05$ and a Cramer's V of 0.385 (38.5%), $p < 0.05$ suggesting a significant moderately strong association between parent/guardian occupation and teenage pregnancy. In the context of this study, it can be suggested improved socio-economic backgrounds are important in reducing teenage pregnancies. Educating girls to accept their social statuses is very important in the eradication of teenage pregnancies in the district. Gökçe, Özşahin & Zencir (2007) also noted that adolescent pregnancy was more frequent in women from families with a low socioeconomic status, as determined by occupation (class) and income; both were associated with adolescent pregnancy.

Table 4. 8 Chi-square tests of association for parent/guardian occupation and teenage pregnancy

		Parent Occupation				
		Formally employed	Unemployed	Self employed	Total	
Age	10-19	Count	20	46	29	95
		% within Age	21.1	48.4	30.5	100.0
		% within Parent Occupation	38.5	80.7	70.7	63.3
	10-19 (not pregnant)	Count	32	11	12	55
		% within Age	58.2	20.0	21.8	100.0
		% within Parent Occupation	61.5	19.3	29.3	36.7
Total		Count	52	57	41	150
		% within Age	34.7	38.0	27.3	100.0
		% within Parent Occupation	100.0	100.0	100.0	100.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.223 ^a	2	.000
Likelihood Ratio	22.363	2	.000
Linear-by-Linear Association	11.828	1	.001
N of Valid Cases	150		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.03.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.385	.000
	Cramer's V	.385	.000
	Contingency Coefficient	.359	.000
	N of Valid Cases	150	

Df Degrees of freedom

4.7.2 Relationship between income level and teenage pregnancy

Income is a very important variable which acts as a push factor for many girls to engage in pre-marital sex which leads to teenage pregnancies. About 34% of the participants suggested that their families survive on monthly income less than USD50. The families of teenage mothers dominate the lower income groups with 80.4%, 61.3% and 54.5% of those in the less than USD50, USD51-USD100 and USD101-USD150 being the families of teenagers. Poor economic backgrounds could lead to increased incidences of teenage pregnancies in the district.

A moderately strong and significant relationship between income and teenage pregnancies was established. Yakubu & Salisu (2018) concur that poverty is one of the determinants of teenage pregnancies. Gökçe, Özşahin & Zencir (2007) and Singh, Darroch & Frost (2001) also share the same sentiments that adolescences from low-income backgrounds both were associated with adolescent pregnancy.

Table 4. 9 Chi-square test of association for income level and teenage pregnancy

			Income				
			<\$50	\$51-\$100	\$101-\$150	>\$150	Total
Age	10-19	Count	41	19	18	17	95
		% within Age	43.2	20.0	18.9	17.9	100.0
		% within Income	80.4	61.3	54.5	48.6	63.3
(not pregnant)	10-19	Count	10	12	15	18	55
		% within Age	18.2	21.8	27.3	32.7	100.0
		% within Income	19.6	38.7	45.5	51.4	36.7
Total		Count	51	31	33	35	150
		% within Age	34.0	20.7	22.0	23.3	100.0
		% within Income	100.0	100.0	100.0	100.0	100.0

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.269	.013
	Cramer's V	.269	.013
	Contingency Coefficient	.259	.013
N of Valid Cases		150	

Source: Raw data.

4.7.3 Relationship between parent-child discussion and teenage pregnancy

Discussions between the parent and the child on sexual reproductive health is very important. Due to their busy schedules, and possibly lack of education, some parents neglect this subject. The results in table 4.10 below show that an equal proportion of participants revealed that they had discussions on sex and reproductive health with their parents. However, a closer inspection of the inner cells of the table shows that 74% of those who did not have discussions with their parents were teenage mothers. On the other hand, for those who held discussions with their parents, about 48% were those in non-pregnancy category. Generally,

parents did not spare enough time to discuss sex and reproductive health concerns with their children.

A chi-square test of independence was conducted comparing the frequencies of parent-child discussions on sex and reproductive health and teenage pregnancy in Chitungwiza district. A statistically significant association between the two variables was found ($\chi^2(1) = 8.29, p < 0.05$). In absolute terms, there is a significant positive relationship between parent-child discussion on sex and reproductive health with teenage pregnancies. If parents have enough time to discuss sex and reproductive topics with teenagers, chances are high that teenage pregnancies would decrease. Parents play a significant role in reprimanding their children on the dangers of teenage pregnancies. Yakubu & Salisu (2018) also noted lack of parental counseling and guidance as one of the causes of teenage pregnancies.

Table 4. 10: Chi-square test of association for parent-child discussion and teenage pregnancy

			Discussion on sex & reproductive health with parents		Total
			Yes	2.00	
Age	10-19	Count	39	56	95
		% within Age	41.1	58.9	100.0
		% within Discussion on sex & repro health with parents	52.0	74.7	63.3
	10-19	Count	36	19	55
		% within Age	65.5	34.5	100.0
		% within Discussion on sex & repro health with parents	48.0	25.3	36.7
Total	Count	75	75	150	
	% within Age	50.0	50.0	100.0	
	% within Discussion on sex & repro health with parents	100.0	100.0	100.0	

Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	8.297 ^a	1	.004		
Continuity Correction ^b	7.349	1	.007		
Likelihood Ratio	8.400	1	.004		
Fisher's Exact Test				.006	.003
Linear-by-Linear Association	8.241	1	.004		
N of Valid Cases	150				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 27.50.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-.235	.004
	Cramer's V	.235	.004
	Contingency Coefficient	.229	.004
N of Valid Cases		150	

Df Degrees of freedom

4.8 Structural determinants of teenage pregnancy

The health facility status as rated by the participants was the variable used to represent the influence of structural. Structural factors enable the teenagers to access health care services without facing difficulties.

4.8.1 Relationship between health facility status and teenage pregnancy

In this study, the respondents rated the status of the health facility where they receive health care as poor, good or better. A closer inspection of the marginal totals for the health facility status reveals that about 48.7% of the respondents suggested that the health facility was good. Only 26% rated their health care facilities as poor and the remainder noted that their health facility was better. The general picture shown by the results is that the majority of the respondents noted that their health facilities were

A chi-square test of independence was conducted comparing health facility status and teenage pregnancy in Chitungwiza. A non-significant association between the two variables was found ($X^2(2) = 0.728, p > 0.05$). These results indicate that health facility status and teenage pregnancy do not have a significant association.

A phi coefficient of 0.07 (7%), $p > 0.05$ and a Cramer's V of 0.07 (7%), $p > 0.05$ suggesting a non-significant association between health facility status and teenage pregnancy. Thus, the behaviour of the teenagers in the district has nothing to do with the status of the health care facilities within their district. If the teenagers could visit their health care facilities to seek family planning and other HIV and STIs prevention services, this could lead to reduced levels of teenage pregnancies. The findings of the current study are in line with suggestions by Maness, et al., (2016) who noted that the measures of the health care facilities did not produce significant results in influencing teenage pregnancies. However, Yakubu and Salisu (2018) established that health care and facility related service have a significant influence on adolescent pregnancies in Sub Saharan Africa.

Table 4. 11: Health facility status and teenage pregnancy cross tabulation

		Health facility status				
		Poor	Good	Better	Total	
Age	10-19	Count	25	44	26	95
		% within Age	26.3	46.3	27.4	100.0
		% within Health facility status	64.1	60.3	68.4	63.3
	10-19 (not pregnant)	Count	14	29	12	55
		% within Age	25.5	52.7	21.8	100.0
		% within Health facility status	35.9	39.7	31.6	36.7
Total		Count	39	73	38	150
		% within Age	26.0	48.7	25.3	100.0
		% within Health facility status	100.0	100.0	100.0	100.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.728 ^a	2	.695
Likelihood Ratio	.734	2	.693
Linear-by-Linear Association	.148	1	.700
N of Valid Cases	150		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.93.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.070	.695
	Cramer's V	.070	.695
	Contingency Coefficient	.069	.695
N of Valid Cases		150	

Df degrees of freedom

Source: Raw data.

4.9 Summary

Being the second last chapter, an analysis of the major findings on the determinants of teenage pregnancies in Chitungwiza was conducted. Demographic variables of the participants were presented first. Later the chapter evaluated the individual level determinates of teenage pregnancies. Socio economic and structural determinants were also evaluated in the context of the teenagers in Chitungwiza district. To achieve this, the Chi-square test for independence has been used to evaluate the type of relationship between each variable and teen pregnancy. Accompanied with this were measures of the strength of the association, namely the phi and Cramer's V coefficients. In each case, the strength of the relationship was evaluated. Chapter 5 summarizes and concludes the research project. Recommendations for management and various stakeholders together with recommendations for further studies shall also be given in the final chapter.

CHAPTER 5 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Chapter 5 focuses on summary, conclusions, recommendations and suggestions for future research. The summary is based on the objectives stated in chapter 1 and the results presented in chapter 4. Conclusions on the determinants of teen pregnancies in Chitungwiza were also drawn and briefly compared with previous studies. Contributions of the study to the body of knowledge and implications for practice, society and policy were also evaluated along the way. The chapter ends by means of suggestions for future research.

5.2 Discussion

This section gives a brief discussion of the major finds of the study on the determinants of teenage pregnancies in Chitungwiza. Relevant literature is also brought in to evaluate points of convergence or divergence with the current findings.

5.2.1 Age at first sexual encounter and child

The study established that in Chitungwiza, the average age at first sexual encounter was 14.1 years while the average age when one had first child was 16.3 years. These results suggest that the teenagers in the district engaged in sexual activities too early. Brahmhatt et al (2014) opined that the factors associated with higher odds of pregnancy were early sexual debut.

5.2.2 The nature of first sexual encounter

The participants were also required to explain the nature of their first sexual encounter. The majority of the participants indicated that their first sexual encounter was as a result of agreement between the two parties. In other words, it was consensual sexual encounter. However, it can also be noted that some of the participants engaged in sex due to peer pressure and forced act. While forced sex does take place among the teenagers, very few would come forward to make reports to the authorities. Rape clinics have a role to play in protecting the girl child when they come forward to report forced sexual activities.

5.2.3 Knowledge on sex and reproductive health and family planning

About 80% of the participants had knowledge about sex, reproductive health and family planning. It was noted that a lot information on the subject is taught to girls starting from primary levels. Hence, the participants had basic knowledge about family planning as well as sex and reproductive health.

5.2.4 Source of information on family planning

The study established that teenagers largely rely on family planning information from peers. This because teenagers value friendship more than anything else hence they consider their peers to be reliable information sources as compared to other sources. It was also argued that it is imperative to equip teenagers with the correct information about sex and reproductive health, since any kind of misinformation can easily spread among them.

5.2.5 Individual level determinants of teenage pregnancy

The individual level determinants of teenage pregnancy considered in this study included the level of education and knowledge of family planning methods and the marital status of the participants.

The influence of education on teenage pregnancy

A chi-square test of independence was conducted comparing the level of education and teenage pregnancy in Chitungwiza. A significant association between the level of education and teenage pregnancy was found ($X^2(3) = 44.13, p < 0.05$). These results show that education and teenage pregnancy had significant association in Chitungwiza. This study suggested that lower levels of education are associated with higher levels of teenage pregnancies. Chances are high that according teenagers the right forms of education could lead to a decrease in the prevalence of teenage pregnancies in Chitungwiza. The findings of the current study are in line with suggestions by Kassa, *et al.*, (2018) who observed that lower levels of education have a significant influence on the prevalence of teenage pregnancies.

Family planning knowledge and teenage pregnancy

Family planning knowledge was another individual level factor used in this study. A chi-square test of independence was conducted comparing the knowledge about family planning and teenage pregnancy in Chitungwiza. A non-significant association between the two variables was found ($X^2(1) = 0.043, p > 0.05$). These results indicate that knowledge of family planning and teenage pregnancy does not have an association. This study suggested that teenagers still get pregnant

even if they have knowledge about family planning methods. In other words, knowledge on family planning alone is not enough, it should be coupled with training on the dangers of teenage pregnancy. However, Yakubu & Salisu (2018) noted that lack of comprehensive sexuality education among teenagers is one variable which results in increased reports of teenage pregnancies in Sub-Saharan Africa.

Marital status and teenage pregnancy

Marital status of the respondent was another individual level factor considered in this study. A chi-square test of independence was conducted comparing the marital status of the participants and teenage pregnancy in Chitungwiza. A statistically significant association between the two variables was found ($X^2(3) = 96.62, p < 0.05$). These results revealed that marital status and teenage pregnancy had a significant association. A closer inspection of the cross tabulations showed that teenagers who get pregnant early would end up being single parents. On the other hand, those who reported to be married were highly associated with late pregnancies. This study argued that educating the girl child on the importance of proper marriage could lead to the reduction in the cases of teenage pregnancies. When teenagers value marriage, they would not engage in unhealthy relationships which lead to teenage pregnancies.

5.2.6 Socio-cultural determinants of teenage pregnancy

Three important variables have been used as the proxy for social cultural determinants of teenage pregnancy. These variables are parent or guardian occupation, parent child discussion on teenage pregnancy and the level of income.

Parent/guardian occupation and teenage pregnancy

A chi-square test of independence was conducted comparing the parent/guardian's occupation and teenage pregnancy in Chitungwiza district. A statistically significant association between the two variables was found ($X^2(2) = 22.22, p < 0.05$). The implication of these results is that parent/guardian occupational status is associated with the prevalence of teenage pregnancies in Chitungwiza. In the context of this study, it could be argued that improved socio-economic backgrounds are important in reducing teenage pregnancies. Gökçe, Özşahin & Zencir (2007) also noted that adolescent pregnancy was more frequent in women from families with a low socioeconomic status, as determined by occupation (class) and income both were associated with adolescent pregnancy.

Parent-child discussion and teenage pregnancy

Discussions between the parent and the child on sexual reproductive health was another socio-cultural determinant of teenage pregnancy. A chi-square test of independence was conducted comparing the frequencies of parent-child discussions on sex and reproductive health and teenage pregnancy in Chitungwiza. A statistically significant association between the two variables was found ($X^2(1) = 8.29, p < 0.05$). This study argued that if parents have enough time to discuss sex and reproductive topics with teenagers, chances are high that teenage pregnancies would decrease. Parents play a significant role in reprimanding their children on the dangers of teenage pregnancies. Yakubu & Salisu (2018) also noted lack of parental counseling and guidance as one of the causes of teenage pregnancies. The results of the current study are congruent with previous suggestions by Kassa et al., (2018) who noted that parent to adolescent

communication about sexual reproductive health is important in reducing teenage pregnancies.

Relationship between income level and teenage pregnancy

Income is a very important variable which acts as a push factor for many girls to engage in pre-marital sex which leads to teenage pregnancies. About 34% of the participants suggested that their families survive on monthly income less than USD50. The families of teenagers dominate the lower income groups with 80.4%, 61.3% and 54.5% of those in the less than USD50, USD51-USD100 and USD101-USD150 being the families of teenage mothers. Poor economic backgrounds could lead to increased incidences of teenage pregnancies in the district. A moderately strong and significant relationship between income and teenage pregnancies was established. Yakubu & Salisu (2018) concur that poverty is one of the determinants of teenage pregnancies. Gökçe, Özşahin & Zencir (2007) and Singh, Darroch & Frost (2001) also share the same sentiments that adolescences from low-income backgrounds both were associated with adolescent pregnancy.

5.2.7 Structural determinants of teenage pregnancy

The health facility status as rated by the participants was the variable used to represent the influence of structural. Structural factors enable the teenagers to access health care services without facing difficulties.

Relationship between health facility status and teenage pregnancy

A chi-square test of independence was conducted comparing health facility status and teenage pregnancy in Chitungwiza. A non-significant association between the

two variables was found ($\chi^2(2) = 0.728, p > 0.05$). These results indicate that health facility status and teenage pregnancy do not have a significant association. Thus, the behaviour of the teenagers in the district has nothing to do with the status of the health care facilities within their district. If the teenagers could visit their health care facilities to seek family planning and other HIV and STIs prevention services, this could lead to reduced levels of teenage pregnancies. The findings of the current study are in line with suggestions by Maness, et al., (2016) who noted that the measures of the health care facilities did not produce significant results in influencing teenage pregnancies. However, Yakubu and Salisu (2018) established that health care and facility related service have a significant influence on adolescent pregnancies in Sub Saharan Africa.

5.3 Conclusions

Teenagers in Chitungwiza engage in early sexual relations and this leads to high rates of pregnancies. Despite the fact that the teenagers had knowledge about sex, reductive health and family planning methods, teenage pregnancies were high. The study noted that knowledge on its own is meaningless unless put to action through combination with other methods of reaching out teenagers on the dangers of early pregnancies. Teenagers rely on their peers as sources of information more than other sources.

On individual level determinants of teenage pregnancy, the level of education and marital status had significant influence on teenage pregnancy. However, family planning knowledge of the participants had no significant influence on teenage pregnancy. With regards to socio cultural determinants of teenage pregnancy,

parent/guardian occupation, parent-child discussion on sex and reproductive health and income had significant influence on teenage pregnancy in Chitungwiza. On structural determinants of teenage pregnancy, the status of health facility had no significant influence on teenage pregnancy in Chitungwiza.

5.4 Implications

The key area emerging from the results are that the participants had basic knowledge about family planning as well as sex and reproductive health which is being taught at school. Nevertheless reduced access to information about sexual and reproductive health rights, inadequate access to services tailored to young people and family, community and social pressure to marry, sexual violence, child early and forced marriage, school dropout remains the major contributor of teen pregnancy. Financial inadequacies can also influence young girls to enter into sexual relationships therefore making them more at risk for pregnancy

.

5.5 Recommendations

The study made the following set of recommendations. Some of the recommendations are targeted to the major beneficiaries of the study the teenagers while others are meant for the responsible authorities.

Programmes which advocate for the girl child to shun early age sexual activities should be put in place. Since the legal majority age in Zimbabwe is 18 years, the results indicate that parents have a role to play in making sure that the rate of teenage pregnancies is reduced. Thus, parents and guardians should monitor the behaviour of the girls.

As prevention measure, teenagers should be encouraged to utilize pregnancy prevention services since the majority reported consensual sex. By the same token, the study also recommended that authorities should make the reporting of forced sex easy.

The education curriculum should also make sure that family planning concepts are mastered as a first step in educating teenagers on the dangers of teenage pregnancies. Pregnancy prevention initiatives should capitalize on the high level of information which participants have about sex and reproductive health.

5.6 Suggestions for further study

The study focused on the determinants of teen pregnancies in Chitungwiza, which is located in Zimbabwe. If resources permit, future research could focus on evaluating the same at national level. The reason being that other districts in the country have different demographic characteristics which may affect the prevalence of teenage pregnancies. This research study utilized cross-sectional data collected in 2021. As a follow-up to this research study, future research can take into account the use of time series and panel data models and incorporate other socio-economic variables which may have an influence on teenage pregnancies. In this study, the Chi-square test of association has been used as the main method of analysis. Future research could also utilize other multivariate analytical techniques such as regression analysis and determine the influence of explanatory variables on teenage pregnancies as a set

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Appendices

APPENDIX 1: English Questionnaire.

Dear respondent

I am Viola Musangomunei a student at Africa University undertaking a course of Masters in Public Health. As part of my course, students are required to undertake research work. Please I hereby request your sincere cooperation in answering these questions as part of my primary data for the study. The objective of the study is to find out the determinants of teenage pregnancy in Chitungwiza.

You are kindly requested to respond freely to the questions to the best of your knowledge as it will bring vital achievement to the report. All information will strictly be confidential and be used for academic purpose only and not otherwise.

Thank you in advance.

Section A: Demographic Information

Please indicate by ticking

1. How old are you?..... years .
2. Which type of area do you live?.....
 - 1) Medium density
 - 2) High density
3. What is your current marital status?
 - 1) Married
 - 2) Single
 - 3) Separated
4. What is your religion?
 - 1) Christianity
 - 2) Muslim
 - 3) Other specify
5. What is your highest level of education?
 - 1) Primary
 - 2) Secondary
 - 3) No schooling

SECTION B: individual factors

Please tick where appropriate

6. At what age did you have a child? years
7. Have you ever heard of reproductive health? 1) Yes 2) No
8. Have you ever heard of the term family planning? 1) Yes 2) No
9. Where did you hear it?
 - 1) Peers
 - 2) parents
 - 3) Health facility
 - 4) school teacher
 - 5) radio
 - 6) Newspapers/ magazine
 - 7) religion leader
10. What are the consequences of early teenage pregnancy?
..... (List as many as you can)
11. Have you ever heard of family planning methods? 1) Yes 2) No
12. Which family planning methods do you know?
 - 1) pill
 - 2) Jadelle
 - 3) Depo-Provera
 - 4) condom
13. Do you know how to use them? 1) Yes 2) No
14. Explain how you use them?
15. Have you ever heard of teen pregnancy? 1) yes 2) no .

16. Where did you get the information?

1) Peers [] 2) parents [] 3) Health facility [] 4) school teacher [] 5) radio []

17. What are the consequences of teen pregnancy?

18. Which family planning method do you use?

1) Pill [] 2) Jadelle [] 3) Depo-Provera [] 4) condom []

19. Where did you get the knowledge from?

.....

1) Peers [] 2) parents [] 3) Health facility [] 4) school teacher [] 5) radio []

Section C: Structural factors

20. Do you get easy access to family planning methods? 1) Yes [] 2) No. []

21 Do family planning service providers friendly attend you? 1) Yes [] 2) No []

22. Do you always get Family Planning methods of your choice? 1) Yes [] 2) No []

23. Do shortages occur sometimes of family planning methods? 1) Yes [] 2) No []

24. Are family planning services provided free of charge at the clinic? 1) Yes [] 2) No []

26. Do your friends encourage you to engage in sexual activities? 1) Yes 2) No

25. How old were you when you had sex for the first time?[] years

26. When you had sex before it was by 1) force 2) willingly 3) peer pressure

27. What do you think Chitungwiza clinics should do in order to reduce teenage pregnancy?

.....

28. What do you think the Government of Zimbabwe should do in order to reduce teenage pregnancies?

.....

Section D – Cultural beliefs and socio economic factors (tick where appropriate).

29. Whom do you live with?

1) Mother and father []

2) Mother only []

3) Father only []

4) Alone []

5) With relatives (specify) []

30. What is your mother, occupation status?

1). employed [] 2) unemployed [] 3) self-employed [].

31. What is your father's occupation status?

1) Employed [] 2) unemployed [] 3) self-employed [].

32. What is the highest level of education of parent /guardian?

	mother	father	Guardian
Primary (grade)			
High school			
Tertiary education			

33. Are young people of your age allowed to get contraception? 1) Yes [] 2) No []

34. If no. what is the reason for not getting contraceptive? (Write down as many as you can)

.....
.....
.....

35. Do you discuss sexual and reproduction health with your parents or guardian?

1) Yes [] 2) No []

36. If no, what is the reason?

- 1) Afraid parents don't want to hear about it []
- 2) Religion doesn't want young people to talk about sexual health []
- 3) Don't have anyone to talk to []

37. Does your parent /guardian provide you with your basic needs when you are in need?

1) Yes [] 2) No []

38. If no where do you get financial assistance when in need?

Thank you for your time

Chikamu chekutanga

Ruzivo pamusoro pako

- 1 Une makore mangani? []
- 1 Unogara kunzvimbo yakaityasei?
 - 1) Yakawanda vanhu [] 2) ine vanhu vashoma []
- 2 Wakaroorwa here?
 - 1) Hongu [] 2) kwete [] 3) takarambana []
- 3 Unopinda chitendero chipi?
 - 1) Chechikritsu [] 2) chechichawa [] 3) handina []
 - 2) 4) kana une chimwe tsanangura []
- 5 Wakagumira chikoro chipi?
 - 1) Puraimari [] 2) sekondari [] 3) handina kupinda chikoro []

Chikamu chechipiri

Ruzivo pamusoro pekuronga mhuri

6. Wakambonzwa here nezvekuronga mhuri? 1) Hong [] 2) kwete []
7. Kana wati hongu, wakanzwa nani / kupi?
 - 1) Paredhiyo. []
 - 2) Mudzidzisi. []
 - 3) Vezveutano. []
 - 4) Mubereki. []
 - 5) Kuchechi []
8. Wakambonzwa nezvenzira dzekuronga mhuri here?
 - 1) Hongu [] 2) kwete []
9. Ndedzipi nzira dzekuronga nadzo mhuri dzaunoziva?
 - 1) Jekiseni []
 - 2) Rupu []
 - 3) Jadhero []
 - 4) Mapiriti []

5)Condomu []

10.Unoshandisa nzira ipi yacho yekuronga mhuri?

- 1) Jekiseni[]
- 2) Rupu[]
- 3) Jadhero[]
- 4) Mapiritsi[]
- 5) Condomu[]

11.Unoziva mashandisirwo acho here? 1) Hongu []2) kwete.[]

12.Kana wati hongu, tsanangura mashandisirwo acho.

.....

Chikamu chechitatu

Zvinokutadzisai kuti muwane rubatsiro kukiriniki maererano nezvekudzizirira pamuviri

13.Unowana kupizva unoshandisa kudzivirira muviri?

- 1) Kushamwari []
- 2) Kukiriniki[]
- 3) Kutenga pamusika[]
- 4)Kuvabereki[]

14. Unokwanisa kuwana zvinodzivirira pamuviri zvirinyore here?

- 1) Hongu []2) kwete[]

15.Kana wati kwete, nemhaka yei?

- 1) Kure nekwandinogara.[]
- 2) Anamukoti Havana ushamwari.[]
- 3) zvinodhura.[]

16.Unowana nzira dzekudzivirira pamuviri dzaunoda here?

- 1) Hongu [] 2) kwete []

17.Ndezvipi zvakaipira kuita pamuviri uchirimwana mudiki?

- 1)Unokwanisa kurwara.[]
- 2) Mwana haakuri zvakana.[]
- 3)Unodzingwa chikoro.[]
- 4) handizivi.[]

18. Munomboshaiwa here nzira dzekudzivira pamuviri?

1) Hongu [] 2) kwete []

19. Wakatanga kuita zvepabonde uine makore mangani?

20. Shamwari dzako dzinokukurudzira kuita zvepabonde here?

1) Hongu 2) kwete

21. Wakaita zvepabonde zvaita sei?

1) Wamanikidzwa.

2) Uchida.

3) Wanzwawo neshamwari.

22. Chii chaunofunga chingaitwa pakiriniki kuti vana vasaite pamuviri?

23. Chii chaunofunga chingaitwe nehurumende kuti vana vadiki vasaite pamuviri?

Chikamu chechina

24. Unogaranani?

Amai nababa	
Amai	
Baba	
Sekuru naambuya	
Ndega	
Dzimwe hama (tsanangura)	

26 Vabereki vako vakagumira gwaro ripi kuchikoro

	Amai	Baba
puraimari		
sekondari		
university		

25. Amai vako vanoita basa rei?

26. Baba vako vanoita basa rei?
27. Vana vadiki vezera rako vanotenderwa here kuronga mhuri?
28. Kana wati kwete nemhaka yei?
29. Unombotaura nyaya dzekudzivirira pamuviri nevabereki vako here? 1) Hongu
2) kwete
30. Kana wati kwete nemhaka yei?
 - 1) Vabereki havadi kuzvinzwa.[]
 - 2) Chitendero chedu hachibvumiri.[]
 - 3) Hapana wekutura navo.[]
31. Vabereki vako vanokupa here zvaunoda kusanganisira mari? 1) Hongu []2)
kwete []
32. Kana wati kwete unopiwa nani kana uchida?

APPENDIX 3: Key informants interview guide

1. What do you understand by the term teenage pregnancy?

2. What do you think are the causes of teenage pregnancy?
3. Are there any obstacles which hinder teenage to utilize sexual and reproductive health services?
4. What are the environmental factors that contribute to teenager pregnant?
5. What measures do you suggest to be done in order to reduce teenage pregnancy?

APPENDIX 4: English Consent /Asset Form for teenage mothers

Title of research: Determinants of teenage pregnancy

Good day. My name is Viola Musangomunei an MPH student at Africa University. I'm conducting a study on Determinants of teen pregnancy in Chitungwiza District. This form gives you information about the study and will be used to document your willingness to take part in the study. If you have any questions about the study you may contact Africa University Ethics Committee (AUREC) at aurec@africau.edu or (0263)60075.

Procedures and duration

The eligible participants are teenagers (10-19) who are pregnant, teenage mothers who reside in Zengeza. You have been selected as a possible participant as you meet the stated selection criteria. A total of 207 participants will be enrolled in this study and if you decide to participate you will be asked to complete the questionnaire. The questionnaire will take you up to 20 minutes to complete.

Benefits or risks

This research is not designed to help you personally, but the results may help the investigator learn more about factors leading to teenage pregnancy. We hope that, in the future, other people might benefit from this study through improved understanding of the reasons that cause teenagers to become pregnant.

Confidentiality

To ensure your anonymity, your personal details will not appear on the questionnaire if you choose to participate in this study. You shall not be requested to identify yourself using your name and surname, numeric tags will be issued and you shall be referred only by the number on your tag. To ensure your confidentiality, all information collected will be kept strictly confidential, no health professional in the health facility will have access to the information. If a report is written or article produced about this research project, your identity will be protected.

Voluntary participation

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits for which you otherwise qualify.

Additional Costs

There will be no additional costs.

Authorization

Please ask any questions on any aspect of this study that is unclear to you before you sign this form. You may take as much time as necessary to think it over. Your signature indicates that you have read and understood the information above, have had all your questions answered and have decided to participate.

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

Teenage mother's name.....

Teenage mother's signature.....

Date.....

APPENDIX 5: Gwaro retenderano

Musoro wetsvakurudzo: Determinants of teen pregnancy in Chitungwiza District.

Zita rangu ndinonzi Viola Musangomuni. Ndirikuita MPH paAfrica University.Ndiri kuita tsvakurudzo yezvinokonzera kuti vana vechidiki vaite pamuviri mudunhu reChitungwiza. Gwaro rino richatipa umboo hwekuzvipira kwenyu kupinda mutsvakurudzo ino. Kana munemibvunzo makasununguka kubata veAfrica University Research Ethics Comitee pa026360075 kana aurec@africau.edu.

Zvamunofanira kuziva pamusoro pezvetsvakurudzo

- Murikukumbirwa kupinda mutsvakurudzo ino
- Gwaro retenderano rino rinotsanangura tsvakurudzo iyi nezvamunofanira kuitamutsvakurudzo.
- Munokumbirwa kuti munyatsoverenga gwaro rino kana kutsvaga angakuverengerai
- Munopinda mutsvakurudzo iyi nokuda kwenyu.
- Kunyangwe zvazvo mambopinda mutsvakurudzo ino, munebvumo yekubuda pamunodira.
- Makumbirwa kupinda mutsvakurudzo ino nekudakwekwamunogara, makore enyu anova pakati pe10-19 uye makaita pamuviri kana kuti munepamuviri.
- Kana mapinda mutsvakurudzo ino tichakupai bepa rinemubvunzo yakasiyana siyana.
- Kana mapinda mutsvakurudzo ino hapana mubhadharo wamuchapiwa.
- Ruzivo rwamuchapa zvichaiswa manhamba erupao kwete zita renyu
- Zita renyu harizozivikanwi.
- Ruzivo rwamuchapa haruzowanikwe pese pese. Rinenge richigara rakachengetedzvamumichina yakaita asemakombiyuta.

Chinangwa chetsvakurudzo

Tinoda kuziva pamusoro zvinokonzera kuti vana vane mazera emakore gumi kusvika gumi nemanomwe vachiita pamuviri.

Chikonzero chaita kuti mukumbirwe kupinda mutsvakurudzo

Masarudzwa kupinda mutsvakurudzo ino kuburikidza nekwamunogara, makore enyu anova pakati pegumi negumi nemanomwe, makazvitakura kana kuti munemwana.

Zvakanaka zvamunowana

Hapana chamunowana kuburikidza nekupinda mutsvakurudzo ino.

Mubhadharo

Hapana chamunobhadhara kuti mupinde mutsvakurudzo ino. Muchadzorerwa mari yekufambisa kwamaita muchiuya kuchipatara.

Kuchengetedzwa kweruzivo

Ruzivo rwamuchapa zvichaiswa pamwe chete nenhamba yerupawo yamuchapiwa, kwete zita renyu. Vatsvakurudzi vetsvakurudzo ino, Africa University Research Committee (AUREC) chete ndivo vachawana mukana wekuziva zvinenge zvabuda muongororo yemhinduro dzamuchapa kumibvunzo ichabvunzwa. Ruzivo urwu ruchachengetedzwa mumakombiyuta akachengeteka. Hatisi kuzoshandisa mazita mumaripoti ari maererano netsvakurudzo.

Zvimwe zvinogona kuitwa kana mamwe marapirwo

Kupinda mutsvakurudzo kuda kwenyu uye munogona kusarudza kubuda mutsvakurudzo chero nguva.

Muripo wekuva mutsvakurudzo

Hamubhadhariswi mari kuburikidza nekupinda kwenyu mutsvakurudzo.

Chii chichaitika kana mukabuda mutsvakurudzo nguva isati yakwana?

Zvisinei nekuti hamudi kupinda mutsvakurudzo kana kuti mabuda mutsvakurudzo, mucharamba muchiwana rubatsiro rwakafanana nerwamaisiwana kubva kukirinika senguva dzose.

Kugoverana ruzivo rwezveutano hwenyu nevamwe

Ruzivo ruri maererano nenhamba yerupawo ndirwo ruchagoveranwa nevamwe vatsvakurudzi, kwete zita renyu.

Sainecha yenyu kana chidhindo chemunwe wenyu pagwaro rino chinoreva kuti:

Maziviswa nezvechinangwa chetsvakurudzo ino, zvichaitwa uye zvakanaka zvamungawana kana njodzi dzamungasangana nadzo. Mapiwa mukana wekubvunza mibvunzo musati masaina. Mazvipira kupinda mutsvakurudzo ino pasina kumanikidzwa. Munonzwisisa kuti ruzivo rwatorwa pamuri zvinogona kuchengetedzwa kuti zvizoshandiswa mutsvakurudzo dzinenge dzabvumidzwa dzinokoshesa unhu hwevanhu.

Sainecha yemunhu apinda mutsvakurudzo

Zuva

Zita remunhu awana mvumo

Sainecha yemunhu awana mvumo

Zuva

APPENDIX 6: Chitungwiza Town Council Approval Letter.



CHITUNGWIZA MUNICIPALITY

All Correspondence to be addressed to the Town Clerk

If Calling, Please
Ask for Dr. T. I. Kasu

P. O. Box 70, ZENGEZA
CHITUNGWIZA
Cell: 0773 733 504
E-mail dhischitungwiza@gmail.com
dr.tonnykasu@hotmail.com

OUR REF :
YOUR REF :
DATE : 18 March 2021

Attention: Viola Musangomuni

RE: REQUEST FOR AUTHORITY TO CONDUCT STUDY TITLED: DETERMINANTS OF TEEN PREGNANCY, A CASE OF ZENGEZA CHITUNGWIZA DISTRICT.

The above matter refers

Your request to conduct the above-mentioned study has been approved. On completion of your research work, you are required to share your findings at a feedback session with the City Health Department.

Dr. T. I. KASU
DIRECTOR HEALTH SERVICES

