

THE UNIVERSITY OF ZAMBIA

**DETERMINANTS OF TEENAGE PREGNANCY IN
LUSAKA DISTRICT**

by

Patrick Katayamoyo

**A dissertation submitted to the University of Zambia in partial fulfillment
of the requirements for the degree of Masters in Public Health**

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Declaration

(i) **Candidate:**

I, Patrick Katayamoyo, hereby declare that the work presented in this dissertation, for the award of Master of Public Health at the University of Zambia, represents my own work and has not been presented either wholly or in part for any other Master of Public Health, Degree, Diploma or other qualifications at this or another University.

I further declare that all the sources I have quoted have been indicated and acknowledged by means of complete references. This dissertation has been prepared in compliance with the guidelines for the Master of Public Health Dissertations of the University of Zambia.

Signature: _____

Date: _____

Patrick Katayamoyo

(ii) **Supervisor:**

I, Professor Seter Siziya, having supervised and read this dissertation, hereby declare that am satisfied with the work of the author under whose name it is being presented. I confirm that the work has been completed satisfactorily.

Signature: _____

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Prof. S. Siziya

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Head of Department: Name: _____

Signature: _____ Date: _____

Examiner I: _____ Name: _____

Signature: _____ Date: _____

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A pregnant teenager who drops out of school has her child predisposed to live in abject poverty as she joins the poverty cycle. Society pays a heavy price for children who are likely to lack proper parenting, economic security and at high risk of behavioral problems and vices such as crime, substance abuse and prostitution. Additionally there are serious and sometimes irreversible effects on the mother such as the emotional, psychological and gynaecological complications. The burden of reproductive health problems falls largely on female adolescents. Maternity registry statistics specifically reveal significantly high numbers of teenagers passing through these centers. This was a major thrust of this study, which intended to determine the predisposing factors to teenage pregnancy in order to add to the body of knowledge on the subject of teenage pregnancy and make necessary recommendations based on evidence.

This research was a case control study. The study population were female teenagers (13 to 19 years old) attending clinic at centers where antenatal services are available. The sample populations were two groups of female teenagers. One group constituted cases comprising pregnant teenagers attending antenatal clinic and another group constituted controls comprising female non-pregnant teenagers attending same clinic for any other ailments (with no reported history of pregnancy or abortion). Selection of sites was purposive of four clinics with the highest teenage delivery rates in Lusaka as well as University Teaching Hospital (UTH). Sample size was determined through an initial pilot study. Data was collected using a structured questionnaire through direct (one to one) interviews. Analysis of data resulted in testing the association of the various exposure factors i.e. socio-demographic, contraception, tradition and culture and illicit sex.

The results on multivariate backward logistics regression indicated the following: teenagers below 16 years were 70% less likely to get pregnant compared to those above, singles were 60% less likely to be pregnant compared to those who are married, while participants with breadwinners who were not in gainful employment were two times more likely to get pregnant. Parental/guardian reprimand was shown to have a deterrent effect on teenage pregnancy. Lack of knowledge on female physiology or hormones was shown to predispose to teenage pregnancy by three times whereas lack of knowledge on condoms had similar effect by twofold. Shyness to access contraceptives by teenagers increased chances of pregnancy by fifty percent.

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
HIV	Human Immunodeficiency Virus
IUD	Intra-uterine Device
LUDHMB	Lusaka Urban District Health Management Board
LUDHMT	Lusaka Urban District Health Management Team
STI	Sexually Transmitted Infection
UTH	University Teaching Hospital
UK	United Kingdom
USA	United States of America
UN	United Nations
WHO	World Health Organisation
ZDHS	Zambia Demographic Health Survey
ZSBS	Zambia Sexual Behaviour Survey

CHAPTER 1

1.0 INTRODUCTION

Considerable attention has been focused on adolescents sexual behaviour world wide and how risky sexual activities contribute to poor reproductive and sexual health outcomes including unwanted pregnancy, abortion, violence, Sexually Transmitted Infections (STIs) and HIV/AIDS. Additionally, consequences can include; early marriages, school dropout, early childbearing, high maternal and infant mortality.

Adolescent health is a primary element in the long term development of a country and cannot be relegated beneath shorter term concerns of macro-economic and other forms of instability. Teenage fertility has led to a shorter life span between generations resulting in serious social-economic deterioration. Teenage fertility also affects the status of women in the society, affecting cultural marriage patterns, awareness of contraceptive options and access to family planning services.

Considering that the age at menarche is now falling below age of 14 years, this indicates an increase in the length of adolescence period, implying that the future momentum for the adolescent health hazards will continue to worsen unless certain measures are put in place.

A preponderance of very young persons in Zambia poses a great economic burden in the family and the entire nation as a whole as they consume much more services which require large capital outlays than they can provide. In such circumstances, the majority of them become engaged in various social activities which lead to health related problems such as; prostitution, early marriage, teenage pregnancy resulting in high teenage fertility and adolescent female headed households, drug abuse, smoking, alcoholism, HIV/AIDS etc.

Such statistics demonstrate the substantiated and continued importance of adolescents in the demographic profile of Zambia. It should be realised that adolescence is a period of physical, psychological and social maturation from childhood to adulthood. Therefore, the importance of the health of adolescents with respect to teenage pregnancy as well as reproductive health promotion in general had to receive recognition hence the need to look at this problem and its attributes in a structurally deeper, broader and serious manner as this study attempted to do. This study was restricted to female teenagers aged between 13 and 19 years old (teenagers).

1.1 BACKGROUND AND JUSTIFICATION

A young mother who drops out of school because of pregnancy reduces her opportunities in life. In a country with such high poverty levels as Zambia, this means her child is predisposed to live in abject poverty as he/she joins the poverty cycle. Society also pays a heavy price for these children who are predisposed to lack of proper parenting, economic insecurity and at high risk of behavioral problems and vices such as crime, substance abuse and prostitution. To know how many of these pregnancies are desirable by these female teenagers is difficult without engaging them to disclose. It is also difficult to postulate that total avoidance of sex during teenage years is feasible. However, there are serious effects on the mother such as the emotional, psychological and gynecological problems and complications. Worse still some complications result in death (mortality). Indeed it is not surprising that we hear and read about so many cases of child dumping mostly by very young mothers.

By law in Zambia, it is illegal for a girl under sixteen years old to have **consensual** carnal knowledge (sex) and yet we have 12 year olds delivering in our institutions! Little evidence based statistics and policy guidelines appear to exist on this matter.

The nature of reproductive health of the adolescent population is related to the sexual activity of this age group. It is also related to the early age of first birth and the high incidence of sexually transmitted infections (STIs), especially the human immunodeficiency virus (HIV). These factors combine to have an important impact on the country's human resources for years to come. This is highlighted by the fact that records show even 12 year olds (who are not part of this study) being attended to for delivery in our Lusaka urban centers (Lusaka DHMT, 2005).

1.2 STATEMENT OF THE PROBLEM

The burden of reproductive health problems falls largely on female adolescents. Not only do they face problems stemming from pregnancy, with its serious health and economic ramifications, but there's increasing evidence that older men are seeking younger girls as sexual partners increasing the potential risk of contracting STIs and HIV which can lead to infertility and death. Indeed, the problem of teenage pregnancy is a serious and critical matter considering the proportion of young women who are affected and the consequent problems that generally await the unborn child to these mothers and the status of most mothers themselves.

Maternity registry statistics that are compiled especially at district, provincial and national levels only capture the numbers of mothers who pass through maternity wards with no special reference to the **age** of the patients. As part of this study, preliminary annual statistics were compiled at University Teaching Hospital (UTH)'s maternity and gynaecology wards registry which showed that on average over 3,000 teenagers delivered and underwent abortion every year (UTH Management Board, 2005).

Additional statistics were obtained from 9 of the 10 clinics in Lusaka urban with maternity or labour wards, looking at the annual trends of deliveries from 2000 - 2004. In the delivery registers, the age of the mother is specifically captured. Generally all cases of abortion from Lusaka clinics are referred to UTH. These centres with labour wards are Chelstone, Kalingalinga, Mtendere, Matero reference and George clinics. Others are Chawama, Chipata, Kanyama and Bauleni compound clinics.

The combined average trends for teenage deliveries at these centers as well as teenage deliveries and abortions at UTH were illustrated in the tabulated figures and the Pie chart which follows in the next few pages. Indeed, the essence of this research study was to consider the diverse attributes leading to teenage

pregnancy in Lusaka in the context of various social demographic factors such as early marriages, poor parenting background, peer pressure, poverty and education. Other factors under consideration included illicit sex in the form of prostitution, defilement, rape and incest as well as the association (or lack of) of contraception, abortion and tradition and culture to teenage pregnancy. Some documented findings such as in the *Zambia Demographic Health Survey 2001-2002*, *Zambia Sexual Behaviour Survey 2003* and other research undertaken under the auspices of *UNICEF* and *CARE INTERNATIONAL* and by several other individuals discussed about adolescent reproductive issues. Subject matter varied from reasons for engaging in sex (which is not necessarily the same as pregnancy) to attitudes and behaviour in the context of STIs and HIV/AIDS. No previous study had related or associated these findings to causes of teenage pregnancy in Zambia. This was the major concern of this study, which intended to determine the predisposing factors to teenage pregnancy.

The outcome of pregnancy reflected in these figures through abortions and deliveries at UTH and other Lusaka clinics was found to be an indicator of the levels of sexual exposure of our adolescent youth. This also highlighted the levels of possible transmission of HIV/AIDS and other STIs in this group of our future generation. Thus, by looking at the factors **driving** this exposure to sex, this was postulated to be likely more helpful in the future strategies for reducing not only teenage pregnancies but also the spread of HIV/AIDS unlike just concentrating on Abstinence, Faithfulness, Condoms and Awareness which were thought to be inadequate. What was even more frightening was that HIV/AIDS rates in Zambia were (and are still) higher in females than males generally, and were (are) **highest** in the female age group between 15 and 24 years old.

Table 1.

ANNUAL TEENAGE CLINIC DELIVERY AVERAGES (2000 – 2004)

Matero reference health centre	1184
Chelstone health centre	375
Kalingalinga health centre	189
Chilenje health centre	482
George health centre	941
Mtendere health centre	310
Kanyama health centre	1302
Chipata health centre	832
Chawama health centre	1050

NOTE

Bauleni health centre; statistics for the period under review not available because labour ward was established hardly more than one year from time of collection of these statistics.

Total teenage clinics' annual average deliveries.....6665
UTH teenage annual average deliveries (2003 – 2004).....2731
UTH teenage annual average abortions (2003 – 2004).....618
****Combined UTH and clinic annual average deliveries for 12 yr olds...28**
****UTH annual average abortions for 12 yr olds (2003 – 2004).....04**

Total annual average teenage deliveries and abortions for UTH and Clinics =10,014.

Sources: Lusaka DHMT and UTH Management Boards

Fig 1. TOTAL DELIVERIES IN LUSAKA URBAN DISTRICT (2000 – 2004)

Lusaka urban clinic deliveries:

2000: 29,754
2001: 25,794
2002: 33,116
2003: 34,873
2004: 38,494

AVERAGE DELIVERIES PER YEAR: **32,406**

Source: Lusaka DHMT, 2005 (unpublished)

UTH deliveries:

2000: 9,504
2001: 11,033
2002: 11,585
2003: 12,224
2004: 12,480

AVERAGE DELIVERIES PER YEAR: **11,365**

Source: UTH Management Board, 2005 (unpublished)

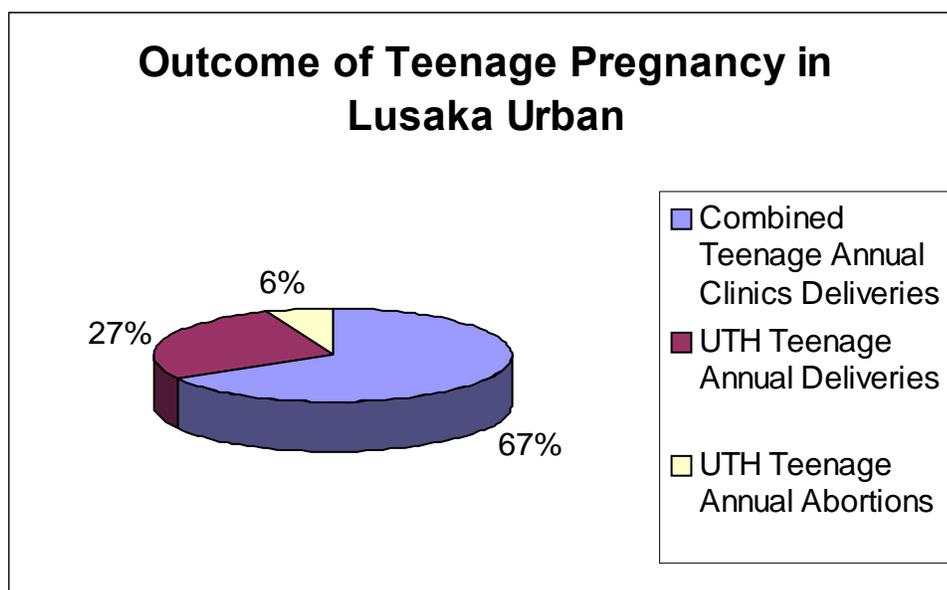


Fig 2.

Apart from the determined outcomes of pregnancy as shown above, other official University Teaching Hospital (UTH) statistics indicated that about 25-30 cases of defilement were attended to weekly at the time of preparing the research proposal. Indeed we didn't know how many of these ended up in pregnancy.

Additional data obtained away from health institutions in this case from the Young Women's Christian Association (YWCA) which deals in counseling and other forms of psycho-social support for women and children indicated that between 2000-2004, they handled the following cases in adolescent girls:- 130 cases of rape; 60 cases of incest; 141 cases of teenage pregnancy; 17 confirmed cases of HIV post rape and 2 cases of baby dumping.

1.3 LITERATURE REVIEW

GLOBAL PERSPECTIVES

➤ *Teenage pregnancy statistics*

In the United States of America (USA), 40% of all girls became pregnant before their twentieth birthday, and one out of every five went on to become a teen-mother. Most early child bearing occurred outside of marriage (76%) and most out of wedlock child bearing started in the teenage years (Sawhill, 2000). Other studies indicated that 10% of all 15 to 19 year old females became pregnant each year and almost 890,000 became pregnant every year. As a result of this high pregnancy rate, teen birth rate was about 5.3% and was much higher than other western industrialised countries; e.g. 0.6% in the Netherlands, 0.9% in Denmark, 1.3% in Sweden, 2.3% in Austria and 3.2% in Great Britain (Kirby, 1999).

In 1991, a total of 103, 271 women under the age of 20 became pregnant in the United Kingdom (UK) - including 7,882 girls aged 16 or under. In 68,000 cases the pregnancy proceeded to maternity and 35,000 cases ended in abortion. Regardless of the outcome, the teenager's physical, emotional and social wellbeing may be irreversibly impaired by pregnancy (Woodward, 1995). A study in the United Kingdom of women between 25 and 29 years (n = 673) found about a quarter of them became pregnant as teenagers. Of these 47% had a baby, 45% had an induced abortion, 7% had a spontaneous miscarriage and 2 experienced fetal loss. 27% of the teenage group went on to have a second teenage pregnancy including 12 of the 67 who had an abortion. Thus, although teenage pregnancy is often viewed as unplanned and unwanted, the reality is more complex (Seamark, 2001).

In the United States, the teen pregnancy rate was much lower in the 1970s, 1980s and 1990s than it was in the 1950s. Although it increased in 1980s, it had somewhat decreased in some states from 1991 - 2000 by between 12 to 39 percent. Rates fell significantly for subgroups 15 to 17 and 18 to 19 years (Ventura et al 2002, Kirby, 1999).

➤ *Teenage pregnancy complications (Social and Obstetrics)*

Evidence suggests that teenage pregnancy can have far reaching physical, social and emotional consequences for young women, including increased risk of antenatal complications and mortality; failure to complete schooling; socioeconomic disadvantage and welfare dependence; increased likelihood of an early marriage and subsequent marital breakdown; mental depression; and less competent parenting (Woodward, 1995). Children born to teenage mothers are also at greater risk of adverse cognitive, behavioral and social developmental outcomes.

The overwhelming majority of these teenage mothers according to research were unmarried and ended up poor and on welfare. Even when such single parents worked, they rarely had the education needed to support a family, and most ended up in low wage, often dead end jobs. Most of their children, whether on or off welfare, remained poor with poorer health, less success in school and had more behavioral problems such as substance abuse, prostitution and crime than children born to older parents. Very early childbearing even if it were to occur within marriage, has been shown to be detrimental. Such families are unstable, and early childbearing prevents young parents from attaining the high levels of education that are necessary to compete in today's economy (Sawhill, 2000).

A study in India found pregnant teenagers had more obstetric complications such as anaemia (27.5%), Intra-uterine growth retardation (27.5%) and hypertension (15%) and prone to forceps (instrumental) delivery and higher still

birth rate compared to a control group of older women of the same parity with (11.2%, 8.7% and 8.7%) respectively for women 20 - 30 years (Pal et al, 1997).

➤ *Family background in relation to teenage pregnancy*

As regards the characteristics of fathers of children born to teenage mothers in Stockholm, Sweden, they were found to have had a more compromised and difficult socio-economic background. They were more likely to have tried illicit drugs and to be involved in criminality. In addition they often came from single parent households (Ekeus and Christensson, 2003). An association had also been detected in the same study between teenage fatherhood and delinquency. More serious delinquents began having sex at younger ages. By age 19, almost half of repeat serious delinquents (46.7%) had caused a pregnancy and nearly a third (31.4%) had fathered children. Rates of impregnation and fatherhood were twice as high among repeat serious delinquents (sometimes with multiple children), compared with moderate and minor/non delinquents. Surely, this had implications for family planning.

Reports also indicated that lack of family continuity; strained parent-child interaction and family discord were associated with increased teenage sexual activity, non use of contraceptives and a higher likelihood of unplanned pregnancy. Teenagers in these circumstances were thought to be rebellious and seeking affection from sexual partnerships. Also those with poor academic achievement, low self esteem and low aspiration embarked on motherhood as a means of giving their lives direction and to increase status (Woodward, 1995).

In Nepal, a study to determine socio-cultural determinants of teenage pregnancy found the affected girls were less educated, had poor economic backgrounds and more likely to have accidental pregnancies. Marriage at a younger age and pregnancy during teens was associated with less social acceptance and poor support in the family (Sharma et al, 2002). Other findings in the United States and New Zealand (for girls prospectively followed up from 5

– 18 yrs) found stronger evidence of impact of absence of the father at home on early sexual activity and teenage pregnancy (Ellis et al, 2003).

➤ *Teenage peer pressure*

A 1997 study from Child Trends in the United Kingdom (UK), reported that boys in particular were teased or taunted by their peers if they were not sexually active while those who had multiple partners often gained in reputation. Although girls who resist sex were not ostracised, they were subject to subtle pressures from boys. Often, girls had sex in order to secure or maintain a relationship (Sawhill, 2000). Teenage pregnancy was also associated with "behavioral contagion" which referred to an increased tendency for a behavior to be performed when socially related persons had already performed it (Jones, 1994). Role of peers in teenage pregnancy was associated with earlier age at first intercourse and adolescents who depended on peers for advice increased their vulnerability.

These pressures from peers were reinforced by the popular media, which glamorized sex, and by adults who were ambivalent about their own values or insufficiently involved in their teenagers' lives.

➤ *Contraception (family planning) among teenagers*

Although teenagers were told about contraception in sex education programs in the UK, some did not make use of the services available. The reasons included embarrassment; concern that parents may be informed; lack of anticipation of when intercourse will occur and indifference to becoming pregnant. In some instances they did not recognise the need to protect against the consequences of sexual activity. The rapid physical changes that occur during adolescence may be only slowly integrated into the young person's self image (Woodward, 1995). Many years of research have also revealed that knowledge level is weakly related to behaviour. It has also shown that programs that focus on knowledge acquisition do increase student knowledge, but they do not

significantly change sexual or contraceptive behaviour. This does not mean ignorance is the answer; knowledge does help build the foundation for behaviour change (Kirby, 1999).

Hard line advocates of abstinence continued to argue that talking about birth control undermined the efficacy of the abstinence message (a dubious proposition according to research on the question) (Sawhill, 2000). Some studies suggested that there is no relationship between parent-child communication on adolescent sexual behaviours. Others on the hand suggested that greater communication was associated with more risk taking behaviour (possibly because the parents expected that sexual behaviour). Still other studies indicated that greater communication was associated with less sexual risk taking behaviour. Probably, other qualities of family interaction (e.g. overall connectedness) may have been far more important (Kirby, 1999).

REGIONAL PERSPECTIVES

➤ *Abortions*

Evidence from many parts of the continent pointed to increasing prevalence of "unwanted pregnancies", particularly among young people. With regard to abortion, most of the studies were hospital based and according to these hospital records, the number of cases has been rising rapidly in the last two decades. At the Kenyatta National Hospital, an average of 40 cases were seen daily (1996), an increase of 600 - 800% over the proceeding decade. Similar observations were reported from Lusaka (Mhango et al, 1986) and Kinshasa (Bongwele et al, 1986) where, like in Nairobi, over 60% of the cases were most likely induced (Rogo, 1996).

An interesting regional variation was seen in hospital case loads in Iloria, Nigeria where an annual average of only 800 cases were recorded, lower than the monthly average from East African reports. This had been the trend in nearly all of West African studies. In the absence of more community based data, the question of validity of data becomes important i.e; were these

differences real or apparent; did they represent variations in cultural practices and behaviour; or were they only reflections of differences in patterns of utilisation of public health services or relative activity of an underestimated private sector in providing abortion services and/or the integrity of hospital records (Rogo, 1996).

Indeed Rogo adds that in East and Central Africa, at least 20% of all maternal deaths were due to complications of induced abortion, were as in West African studies this is hardly above 10%. In Nairobi 53% of patients with septic abortion were teenagers while 79% of single girls were in the induced abortion group. Apparently, more married, multiparous women, due to social and economic pressures were now turning to abortion as a means of family planning. In a Kenyan study 46% of abortion patients had between 1 and 3 children and 21.8% had 4 to 6 children and 7% had 7 children or more.

In all parts of Africa induced abortion has been illegal or severely restricted by law. Only in two sub Saharan Africa countries, Zambia and Burundi, is termination of pregnancy allowed on social grounds (Liskins, 1980). But even in these countries, procedural complications and inadequacy of services make it impossible for demands for induced abortion to be met adequately and promptly. Although still illegal, Kenya, Seychelles, Mozambique and Angola have mildly relaxed their abortion laws. However, restrictive abortion laws did not seem to have deterred women from seeking abortion in Africa (Rogo, 1996).

In Kenya 71% of abortions in rural areas were performed by paramedics and non medical people and 15% were self-induced. Only 8% were done by doctors. As paramedics received no training in gynaecology the problems and complications were inevitable. Methods used included insertion of foreign objects into the cervix such as bones, wires, knitting needles, sticks and rubber catheters, without any resort to asepsis or sterility. High doses of anti malarial medicines which could be bought in any shop as well as tea leaves, the back of

avocado tree, ginger and the leaf of "bigarade" tree in Seychelles were also used (Rogo, 1996).

➤ *Teenage pregnancy complications (Social and Obstetrics)*

Complications of abortion include Septicaemia, haemorrhage and trauma being the commonest. Others are anaemia, pelvic pains (chronic), and tubal infertility (Murugu 1985; Mhango et al 1986). In Benin City, Nigeria, induced abortion was responsible for 92% of all abortion related deaths (Rogo, 1996). 60% of these occurred in teenagers. In a Senegalese study, outcome of teenage pregnancy had been shown to be associated with low birth weight for over 10% of teenagers, low weight gain during pregnancy and fewer antenatal visits as well and kidney related syndromes (Ndiaye et al, 2001). In Ethiopia about 14% of obstructed labour occurred among teenage pregnant mothers of whom 44% had no antenatal care (Gaym, 2002; Boulton and Cunningham, 1995).

In Botswana, the secondary school female drop out rate due to pregnancy was 56% in 1986 (Mashalaba, 1989). School drop out limits opportunities for women and maintains the status quo and is partly reflected in low numbers of women pursuing university education in most African countries. It would be interesting to know how many girls because of safe abortions continue their studies and realise their full potential and contribute to their countries. As for social predicaments, a South African study found that boys tended to be unwilling to accept or give support to the child for fear of putting their education and job prospects in jeopardy (Kaufman et al, 2001).

➤ *Other factors*

In another South African study in Cape town, teenage pregnancy was found to be most strongly associated with having frequent sex, without reliable contraception protection, forced sexual initiation, not owning a television set, larger household size, not living in a brick house, not living with the biological father, talking openly about sex with a boyfriend and perceiving most friends to be pregnant (Vundule et al, 2001).

In South Africa, 30% of 19 year olds have given birth at least once (Kaufman et al, 2001). Similarly, findings of sexual activity and outcome among female secondary school students in Nigeria (n = 534) revealed the following: Prevalence of sexual intercourse among female students was 25.7%, of whom 12.4% had initiated sexual intercourse before 11 years. The frequency of sexual exposure was high with 34.3% of the students having intercourse more than once in a week. Pregnancy rate among the sexually active females was 27.0% and 24.8% rate of induced abortion (Anochie and Ikpeme, 2001).

➤ *Poverty and economic survival in relation to teenage pregnancy*

Historically, age differences between marital partners have been large throughout Africa and economic exchange continues to be integral in marriage rites. Women's increasing dependence on men's economic support throughout much of the region over the last century had meant that women's personal resources, including their sexuality, have newfound economic potential. Premarital and extramarital sexual encounters increasingly involved the transfer of material resources, such as money and gifts, from a man to his female partner (Luke, 2003). This development had been labeled by some as the "commoditization" or "commercialization" of sexual relations, and ranged from commercial sex to more informal transactions between individual partners. For example, social norms in many sub Saharan African context permitted (and even encouraged) men to engage in sex with multiple partners, favored sex with younger partners, and dominating sexual decision-making (Fuglesang, 1997). Moreover, economic realities enabled men to monopolize the sources of income and gave older men more social and economic power than younger men (Luke, 2003).

In addition to these contextual factors and asymmetries, our conceptual framework suggested that adolescent girls as individuals were at an exceptional disadvantage when negotiating sexual relations with older men for several important reasons. First, the economic value of their sexuality was particularly

pronounced for adolescent girls, for they had fewer market opportunities than older women and less access than boys to pocket money from parents (Bohmer and Kirumira 1997; Webb1997). Population growth and economic conditions had produced a partner squeeze in many African settings, where older, economically secure men were at a shortage and younger women were in great supply (Vos 1994; Gorgen et al. 1998). Thus girls and young women may have found it harder to negotiate the terms of sexual relationships with older partners because the availability of substitute female partners was so great.

Research undertaken in Dar-es-salaam, Tanzania, found that approximately three fourths of these girls' partners (most often the partner responsible for the pregnancy) were more than ten years older and more than one fourth were in their 40s' the latter statistic revealing age differences of at least 20 (Luke, 2003). Overall evidence from the review indicated that engaging in sexual relations with older partners was the norm for adolescent girls in sub Sahara Africa. One study also identified partnerships that contained both age and economic asymmetries and found a decreased likelihood of condom use, compared with relationships that had no such asymmetries (Luke, 2003). That study also found a significant association between increased amounts in economic transaction and the non-use of condoms.

The literature revealed that adolescent girls' motivations for engaging in relationships with older partners were varied and often intertwined. Numerous studies found that many girls chose older male partners in order to find love and eventually, a spouse. Older men were marriageable. They were perceived as more secure economically, more serious about marriage and more likely to marry or support a girl if she became pregnant unintentionally (Meekers and Calves, 1997b; Gorgen et al, 1998). Pregnancy may also have been a strategy that girls used to persuade their partners to marry them. In addition, parents often pressured girls to form relationships with older, established partners that would probably lead to marriage or at least into a situation where the partners could support their daughter if she became pregnant. Several studies found

that parents warned daughters not to bear a poor boy's child. Parents would also disapprove of a girl's relationship with older men, especially if the man was not interested in marriage (Gorgen et al 1998; Luke, 2003).

In contrast, research from a number of settings revealed that adolescent girls did not always love their older partners and sometimes had no intention of marrying them, or they may have known that their partners were not interested in marriage (Akuffo, 1987). These girls preferred partners closer to their own age as they sought to fulfill desires for love, affection and eventual marriage (Gorgen et al.2002). For example, several studies reported that girls had older partners for material benefits and simultaneously had younger or "main" boyfriends who represent more serious relationships that may lead to marriage (Luke, 2003).

Most of these studies referred to above uncovered financial benefits as major motivations for girls to engage in sexual relationships with older partners. Although varied and complex, these benefits could be divided into three categories:

- Assistance with economical survival
- A way to secure long term opportunities
- A means of increasing ones status among one's peers.

With respect to economic survival, evidence from several studies indicated that many girls used resources from older men for basic needs or in times of economic crisis (Meekers and Calves, 1997b; Luke, 2003). For example, young mothers may have been particularly vulnerable or parents may have pressured their daughters directly to enter into relationships with older, well-off men because they needed assistance from their children. The findings of numerous studies suggested that adolescent girls were motivated to secure opportunities and enhance long-term goals of achieving higher economic status and stability through their involvement with older partners. Much of the

evidence described the situations of female secondary school students who needed the financial support of older men to stay in school and pay for school necessities, such as fees and supplies (Akuffo, 1987; Meekers and Calves, 1997b). Similar financial constraints appeared to affect university students, and older partners helped to pay for tuition, living expenses, university housing, cloths and food. Another segment of literature studied the lives of educated single young women who entered into relationships with much older wealthy men to help achieve their goals of financial security and social mobility. Their partners helped them meet influential people and establish them in an occupational career (Meekers and Calves 1997b).

The literature suggested that financial rewards were reaped more successfully by the older than young adolescent girls who were inexperienced in exchange negotiations. Fuglesang reported that girls in Tanzania, aged 10 – 11 years old, were lured into sexual relations with older men for "chips, coca cola, transport to school, money for videos or just extra little things." Evidence from the review pointed to the conclusion that transactional relations had become common in many places in Africa and that girls expected to receive some sort of payment for sex (Luke, 2003). Gifts had become the symbol of the girl's worth and showed a man's interest and girls felt offended if they did not receive something in return for sex. A study in Burkina Faso concluded: "Receiving gifts or money in exchange for sexual favors was considered unremarkable. A girl would feel humiliated and disrespected if she received nothing for engaging in sex" (Gorgen et al, 1998). Interestingly, none of the adolescents in the studies reviewed associated these examples of economic exchange with prostitution, a socially unacceptable activity in their eyes. Moreover, gifts were not given and accepted on every date or at every sexual encounter, a circumstance that may strengthen the view that these exchanges did not constitute prostitution (Luke, 2003).

The literature suggested that there is a wider occurrence of transactional sexual relationships for the purpose of fulfilling adolescent desires for status and gifts

than for securing basic needs due to extreme poverty. Many girls and young women do not appear to need the financial support of older men as a full source of income; educated young women are often already employed and adolescents' parents support them, for the most part.

➤ *Teenage peer pressure*

Traditional methods of sexuality education in Africa had substantially weakened due to urbanisation and death of adults due to HIV/AIDS. This had resulted in void of information about reproduction and relations with the opposite sex that had not been replaced by formal education or by systematic instruction from reliable adults whether from parents, elders, teacher, or others. Many observers believed that peers had filled this void as the most important source of knowledge and influence on sexuality (Gage, 1998). Unfortunately, peer knowledge was believed to be misguided and inaccurate (Akuffo, 1987; Bohmer and Kirumira, 1997; Fuglesang, 1997; Webb, 1997; Nyanzi et al. 2000). Furthermore, adolescents' peers emphasized status and material goods, and they mimic adult norms of sexual behaviour. These realities left girls ignorant of not only their bodies but also sexual processes while leading them to value sexual relationships that conferred status and financial rewards.

Older partners helped girls achieve the goal of increasing their status among peers in two ways. First, older partners helped fulfill the expectation that girls would have boyfriends and be sexually active. Second, older men could provide girls with money and gifts for luxuries such as nice clothes, soap, make up, perfume, jewelry, and modern hairstyles, items that parents were often unable or unwilling to pay for. These things helped girls to enjoy an upscale life style and look "modern" (Akuffo, 1987; Meekers and Calves, 1997b).

➤ *Men's motivation for teenage girls*

The literature recounted the motivations why older men engaged in sexual partnerships with adolescent girls and young women, including; regular access to sex, enhancement of prestige, domestic help and maintenance of health.

Studies revealed that for African men, it was a "natural right" to have multiple partners and men preferred young women, often students, as non-marital partners. The ability to attract young partners inflated male self esteem and demonstrated that men were able to "conquer" women (Fuglesang, 1997). Men reaped other benefits from having young partners; in particular, they obtained domestic help, if they were not married or cohabiting (Luke, 2003).

Luke, (2003) also reported that from qualitative studies evidence abounds that, as men became more aware of the dangers of AIDS, increasingly they sought out younger partners, often school girls, in the belief that young girls were unlikely to be infected with HIV. The idea of forming a relationship with a clean young woman replicated a traditional belief, in many areas of Africa and else where, that having sexual intercourse with a virgin would rid a man of infection, including STIs or AIDS. Nevertheless, in some African contexts adolescent girls were (are) more likely to be infected than females in other age groups.

Among strategies used to attract young partners, some men promised love, marriage, or gifts and many men appeared to understand and accept that a transaction was to be expected in sexual relations (Gorgen et al. 1998). On the whole, however, men appeared to be unconcerned with reproductive health risks to themselves or their partners. Their lack of concern might be due to feelings of fatalism or predestination that have been offered as explanations for seemingly irrational behaviour with regard to HIV/AIDS transmission in Africa (Luke, 2003). Often, girls' older partners might not initiate or accept condom or contraceptive use and "argued that there is no risk involved in having sexual relations or that pregnancy posed no severe problems". Numerous studies also found that if their young partners became pregnant, many men did not agree to paternity, that subsequently they severed the relations, and that they did not support their partners' decisions to seek an abortion or rear children (Akuffo, 1987; Fuglesang, 1997).

➤ *Girls' negotiating power and attitude*

Adolescent girls appeared to have a high degree of control over partnership formation. To a great extent, girls were able to choose the number and types of partners with whom they were involved and, often, the onset of sexual relations. For example, several studies found that girls often deceived boys and men by offering "false promises" that delayed sexual relations. Delaying the onset of the relationship allowed girls to increase the chances of receiving money and maximise the amount, assess the man's character, and get rid of men or boys they did not like (Luke, 2003). A study in Uganda among secondary school students recounted an explicit description of girls' negotiating strategies including the practice of "detoothing," where girls milk as much money as possible out of their partners without giving sexual favours in return. Because older partners were wealthier and try to flaunt it, they were usually the focus of detoothing. Some girls admitted that after receiving the gifts, they hid, disappeared, evaded the man or became disinterested and "cold" so that they did not have to give the expected "goods" in return (Nyanzi et al, 2000:89; Luke, 2003).

A second aspect of sexual relations over which girls had considerable control is the duration of a relationship. Many adolescent girls in the studies reviewed described how they could terminate a sexual relationship or refuse sex, particularly if they did not continue to receive gifts. Even in cases where girls said they were in love with their partners or did not need money, they still insisted on gifts if the relationship was (is) to continue. Apparently, adolescent girls did not wish to cease all relationships; however, when they lost or dropped one partner, they readily substituted another who offered similar or greater rewards (Luke, 2003).

The same research above also suggested that adolescent girls had some degree of control over pregnancy, paternity, and abortion decisions. Pregnancy could be a card that girls played to continue a relationship and receive further financial support from a partner and as a result; they were not motivated to use

condoms. Young unwed mothers might hold a better-off boyfriend responsible for a pregnancy even if he was not a biological father, because he was better able to support the child or pay for an abortion (Luke, 2003).

Although girls appeared to have control over establishing and terminating sexual relations, this review found that older men had a greater degree of bargaining power within sexual partnerships, particularly once girls have used their own power to negotiate the formation of the relationship. Most adolescent girls seemed to have little power to discuss or negotiate safe sex practices, specifically condom use and sexual activities, or to control violence in a relationship. In terms of sexual intercourse among school going children, among female respondents it was found that if they had ever used drugs, it was a significant risk factor (Siziya et al., 2007).

➤ *Sexual violence*

The link between economic transaction and sexual activity described in the literature suggested that most adolescent girls were obligated to have sex with men who offered gifts and were less likely to suggest condom use with these partners (Luke, 2003; Gorgen et al, 1998). The type and value of those gift appeared to be connected to sexual activity, according to a qualitative study conducted in South Africa, whereas other studies indicated that the value of the gift was not crucial, and that even minor gifts, such as a soda or transport were enough to induce girls to have sex or disregard condom use (Fuglesang,1997; Luke, 2003). Adolescent girls could not often insist on safer sex practices because doing so jeopardized their goals for the relationship. They feared losing their partners and the associated financial support, as well as losing status and the prospect of marriage. Sexual or physical violence appeared to be a relatively frequent male response to young partners who over-stepped their bounds of bargaining power. Numerous studies concluded that assertive actions on the part of girls - such as rejecting sexual advances, suggesting condom use, attracting multiple partners, or attempting to discuss sexual matters – could bring about negative reactions from partners, including physical

violence and rape (Luke, 2003). Evidence also suggested that violence was an active male strategy to fore-go the rules of negotiating sexual relations altogether. The research offered numerous examples of older partners, such as teacher's relatives, and peers (and sometimes groups of peers) who forced girls to have sex (Bohmer and Kirumira, 1997; Nyanzi et al, 2000). Threats or use of violence may also have compelled girls to remain in relationships that they would otherwise terminate.

Evidence revealed that male violence had become socially sanctioned by the community. In the study of "detothing" in Uganda, all adolescents – even the girls thought that rape was justifiable in cases of detothing (Nyanzi et al, 2000). Moreover, a study conducted in South Africa revealed that some girls perceived violence as a partner's expression of love or interest.

One methodological use uncovered in the review was that many studies attributed unsafe behaviors and HIV infection directly to age mixing or economic transaction and failed to account for the possible selection of individuals into asymmetrical relationships. However, certain girls (who were independently more likely to engage in risky behaviours and experience poor health outcomes) may also have been more like to select older partners or engaged in transactional sex. Large age differences or economic transaction in these cases merely serves as proxies for individual characteristics that were not measured and that contribute to higher levels of infection (Luke, 2003).

LOCAL PERSPECTIVE

➤ *Pregnancy and marriage*

For many young Zambian women, particularly in the rural, more traditional settings, motherhood was the only identity that they felt they can ever have, and this is certainly the perception of most parents (Webb et al., 1996). Reasons, in some rural areas of Zambia for early marriages included, the encouragement by

parents to avoid promiscuity and HIV/AIDS/STIs infection as well as inability to pay school fees and parents desire to obtain lobola (dowry) (*Chadiza*), and that married women were respected in society (*Mansa*) (Nsemukile et al., 1998).

Overall, older community members had unsympathetic attitudes towards young unmarried mothers but there appeared to be no judgement passed if they were seen as married, regardless of age. Although the legal age at which a girl can consent to sex is 16 years old in Zambian civil law, the legal age of marriage for the girl is 18 years while for the man it is 21 years. However, under customary law, (which represents the 'traditional system') the girl can get married as soon as she reaches puberty. Because Zambia allows for both customary and statutory laws, two parallel legal systems are operating. Thus, double standards and areas of conflict exist, particularly in relation to divorce, child custody, land tenure and inheritance and some advocates have called for a definite policy to delay marriages (Webb et al., 1996). In Zambia, as any other part of Africa, a couple is expected to start childbearing soon after marriage. Thus, early marriage automatically indicates early childbearing, possibly short birth intervals and many births. The woman therefore risks impairing her health as a result of early or frequent births.

There were no obvious researched reasons in urban centers such as Lusaka for early marriages and this study intended to find some answers to this question. In urban settings interestingly, Mutukwa et al., 1994, through discussions with secondary school girls, found that marriage was not considered a priority.

➤ *Level of knowledge on sexuality and contraception (Family planning)*

A study done in Chawama compound by Shah and Nkhama, 1996 involving youngsters aged 8 – 17 years old found that their main source of information on reproductive functions and sexual practice were Grandparents, friends and pornographic videos. Boys in school also got information from their textbooks and teachers. For 13 – 15 year olds pornographic books and films acted as

highest source of information. The videos were shown at a local restaurant three times a week and were accessible to all without any age or other restrictions and with flexible payments such as soft drink and beer bottles. For girls the main source of information was the Grandmother followed by aunts, female neighbours, friends as well as school textbooks and teachers. For some it was also during the initiation ceremony where female relatives imparted sexual knowledge and taught the "sex dance". Some older girls also mentioned that they hesitated visiting the clinic just for the sake of information because when older people saw them go to the clinic they suspected that they may be carrying an STI (Shah and Nkhama, 1996).

The Government, through the Ministry of Health, lays down guidelines and target groups for family planning. In the interim document of Family planning policy Guidelines and Standards, 1995, the priority groups were listed as: women with a child less than two years of age; young adults; parents with four or more children; parents with satisfied parity; couples/individuals wanting to delay their first pregnancy; men; clients with physical disabilities, mental retardation, drug or alcohol addiction or major psychiatric disorder as well as STI/HIV/AIDS infected persons and sex workers. Certain categories mentioned above were sufficiently vague to allow for adolescents to receive contraceptives on demand but whether that happened was uncertain and probably unlikely. What was certainly clear was that increasingly, sexual activity was being divorced from marriage in the adolescents' age group while the Ministry of Health family planning services were used, almost exclusively, by married women (ZDHS, 2001-2002). A 1989 study on maternal health and family planning programmes found 83% and 81% of healthcare providers expressed concern at providing family planning services to unmarried and teenage mothers respectively (Webb et al., 1996). This was despite the fact that more than 61% of females who used contraceptives sourced them from public health institutions (ZDHS, 2001-2002).

Use of contraceptives by females increased with age with peak at age (30 – 34 years) representing 38% and then started to decline. Among married women, the pill (12%) and withdrawal (5%) were the most commonly used modern and traditional methods respectively. After the condom (15%), the most commonly used modern method among sexually active unmarried women was the pill (10%), while withdrawal (2%) was the most widely used traditional method. More sexually active unmarried women used a modern contraceptive method than currently married women (29% and 23% respectively). This difference may have been due to higher use of male condoms by sexually active unmarried women (15%) than currently married women (4%) (ZDHS, 2001-2002). According to the study done in Chawama (Shah and Nkhama, 1996) half of 15 – 19 year old females who had used contraception started before they had any children. 98% of both men and women interviewed knew at least one method. Knowledge of modern methods of family planning was higher than for traditional methods generally. Interestingly most girls knew about use of condoms for prevention of pregnancy but knew very little about other methods such as the pill (combined oral contraceptive pill) which was known mostly by older girls 17 – 20 years. However, they were aware of traditional forms of contraception such as; tying charms around the waist (from traditional healers), drinking plant roots extracts, chewing boiled tea leaves and strangely enough drinking cooking oil (saladi). Paradoxically 75% of boys and girls considered abortion to be a “normal” form of contraception.

If the above information was to be taken as a reflection of the level of awareness on contraception as well as poor accessibility by adolescents, then there was need to find out why things are like this and this study attempted to do just that.

➤ *Tradition, culture and sexual attitudes*

One factor that determines fertility in a population was the average age at first birth. Women who marry early are typically exposed to the risk of pregnancy for a longer period. Thus early childbearing generally leads to a large family size

with the associated increased health risk for the mother and child. Typically most women in Zambia became mothers before the age of 20, with 60 to 70% in all age groups having given birth by that age (ZDHS, 2001-2002).

The median age at first sexual intercourse was 17 years for females and just about 18 years for males according to both the latest ZDHS 2001-2002 and ZSBS 2003. This was the age at which on average, half of the females and males have had first sexual intercourse. Almost 20% of females and males report that they had sexual intercourse before age of 15 years. By 18 years, 66% of females and about 50% of men had sexual intercourse. For both sexes age at first sex appeared to be lowest in North–Western and Western provinces and highest in Northern Province. The median age at first sex increased steadily as education attainment increases. Also this age was higher among urban than rural men and women (ZDHS, 2002).

Perhaps the documented median age at first sex did not appear so bad, but the major concern of this study was with the half that started sex earlier than 18 years particularly considering the underlying motivations and the consequences of having say 13 year old females in labour wards. The urban-rural factors noted, the figures for teenage deliveries in Lusaka were significantly high that questions had to be asked as to the determinants of teenage pregnancy and answers found as has happened in this study.

According to a case study of Bemba and Lozi women's sexual practices, puberty or mernache was also one factor that influenced onset of sexual activities and consequently marriage because of the associated rituals but this was not well documented in the urban settings. Among Lozi females, sexual contact happened as early as six years with prevalence in this particular study survey generally before puberty (10%), at puberty ritual (35.5%) and onset in marriage (22.2%) compared with Bemba females' sexual exposure before puberty (5.6%), at puberty ritual (4.4%) and onset in marriage (57.8%). There was liberal sex practice among the Lozi compared to the Bemba. The findings

also indicated 96% of Bemba women and 100% of all Lozi women in this study were exposed to puberty rites for sexual moral values otherwise known as “chisungu” in Bemba and “Sikenge” in Lozi. Also found out was that Bemba women were more influenced by kin members on desired family size than the Lozi whose decision was more of the women’s own determination (Likwa, 1996).

An assessment was made to determine women’s level of empowerment through; participation in decision-making in the home, degree of acceptance of wife beating and degree of acceptance of wife’s right to refuse sex with husband. It was found that decision-making increased with improved education (37%) and capacity of the wife to earn cash (26%). On the five reasons given for possible wife beating i.e Infidelity, neglect of children, arguing with husband, refusing sex and cooking bad food, it was found that 80% of the women agreed that wife beating was justified in at least one of the specified reasons. Acceptance of wife beating was highest in case of infidelity (79%) and lowest in cooking bad or late meals (45%). On the right of the wife to refuse sex based on reasons such as husband having an STI, husband’s infidelity, wife being tired or not in the mood and wife recently given birth, the findings were interesting. It was found that for men the least acceptable reason for a wife to refuse sex was knowledge that husband had an STI (71%), whereas for the women it was being tired or not in the mood (67%). Surprisingly for men, being tired or not in the mood was the most widely acceptable reason for a wife to refuse sex (93%) (ZDHS, 2002). Other aspects of tradition and culture which seemed not to be well covered in the literature included concepts of wife cleansing, wife inheritance, early marriages per se and women’s perception of polygamous marriages which was assessed in this study.

➤ *Abortions*

As early as 1983, the Zambian Ministry of Health (MOH) reported a hospital total of 1,164 cases of legally induced abortions (Medical Statistics Annual Report, 1983). The same report, however, documents 14,940 cases in 1982

and 16,977 cases in 1983 of admissions of “unspecified abortions” which includes women 15 years and older who presented with complications of illegally induced abortions. By 1998, 40% of maternal deaths observed in one study countrywide occurred among young girls aged 12 – 24 years old. At UTH in 1986 it was reported that 15% of maternal mortality (deaths) were due to induced (illegal) abortions (M’hango et al., 1986). By 1996, 60% of the women presenting with complications of illegal abortions at UTH were in the range 15 – 19 years old, whereas only 28% of the general population of Lusaka fell into this age group. Almost all (80.5%) of the women admitted for complications of induced abortions cited “being a student” as the reason that they sought to end their pregnancy. The next largest group of these clients cited fear of religious or social embarrassment or uncertainty of the foetus’s paternity, as the reason for inducing an abortion. Other reasons included lactation, divorce, separation, or widowhood. 11% of the women treated for complications reported having at least one previous abortion. It is also evident from this study that many were using abortion to space births or even to delay first birth (Likwa and Whittaker, 1996).

52% had either seen a traditional healer or midwife and/or had used a traditional method to induce abortion. The most popular was the insertion of fresh cassava root to cause cervical dilatation. About 20% used orally ingested herbs while 26% of the women stated that a private medical practitioner induced their abortion. The remaining 22% used a variety of methods that included ingestion of overdose of aspirin or chloroquine, or the swallowing of detergents or washing powders.

Very few of these women interviewed in the above study used a modern method of contraception, defined in this study as oral contraceptives, intrauterine contraceptive devices, and barrier methods. 73% of the women requesting a legal termination had never used a modern method of contraception. Of the 27% who had used a modern method, 20% had become pregnant after discontinuing the use of the method. 88% of the young women

admitted for complications of induced abortions had never used a modern method of contraception (Likwa and Whittaker, 1996). The lack of experience of contraception of the majority of those seeking or obtaining an abortion has been of concern. Indeed this reinforces the view that something is amiss when it comes to access of contraceptives to young women which definitely this study intends to pursue.

➤ *Defilement, rape and incest*

Men and girls, especially in rural areas, do not know about defilement. According to them, defilement is sexual intercourse, with a girl who had not reached puberty or sexual intercourse with a virgin. Hence, a girl could only be defiled once. This understanding of defilement generally is acceptable traditionally and biblically. Violation of virginity could only attract compensation in form of damages. Mainly, reporting to the police is only done when a girl has sex for the first time but has not reached puberty or she has reached puberty but she appears to be very young. After first sexual intercourse, any subsequent sexual acts that she may involve herself into are not a concern of society.

However, when it comes to what the law provides and how the Police handle these matters this is not as straight-forward as that and most people may not be aware according to *Sexual offences in Zambia and how the Police deal with them* (Daka, 2004).

Any girl below 16 years can be defiled provided she consents to the act of sexual intercourse. If she does not consent, then it is rape. Basically this is the difference between rape and defilement: If a girl consents, she is defiled; if she does not consent then she is raped. Also, any female of unsound mind (imbecile or idiot) can be defiled, regardless of her consent or age. In defilement cases, consent is immaterial. Defilement is another form of rape and it is called statutory rape, since Parliament has set an age-limit at which a girl cannot consent to sex. The law on defilement considers girls less than sixteen years to

be incapable of making sound decisions on sexual intercourse. According to the law, a girl can be defiled more than once. For example, if five men have sex with a girl below 16 years, each one of them has defiled her (Daka, 2004).

The court has drawn its attention to the true meaning of lawful marriages. A marriage with a girl less than 16 years can only be lawful when her parents or guardians give permission for her to marry. Consent of a girl alone cannot make a marriage lawful. So if a man elopes or starts staying with a girl under the age of 16, he cannot claim to be married to her. Such a marriage is void, and that man should be arrested for defilement. In the case of a man who is having sex with a girl below 16 years, to whom he is "lawfully" married, he does so legally as long as such a girl is 12 years and above. If the girl is below 12 years, then both her parents and husband, and any other persons who supported such a marriage can be arrested for defilement (and as accessories). A girl who marries at 13 years and divorces at 15 years then goes on to have sex with another man after divorce, cannot be considered defiled for with the consent of her parents she was legally married before. A married girl regardless of age, if she willingly has sex with another man, she has not been defiled, instead she has committed adultery. And, such a man cannot be arrested for defilement because he had sex with a 14-year-old married woman!

The literature by Daka, 2004 above also pointed out that "rape" was when a man had unlawful sexual intercourse of a woman or girl without her consent. It is also rape if a woman or girl consents to sexual act, as long as that consent was obtained:

- (a) by force
- (b) by means of threats or intimidation of any kind
- (c) by fear of bodily harm
- (d) by means of false representation as to the nature of the act
- (e) and in case of a married woman by impersonating her husband

(a) and (d) above needed some clarification because in (a) there were two types of force recognised under the law. There's actual physical force, which is obvious and constructive force in which there's rape by use of emotional/mental force and rape by sedation. An example of emotional/mental force is of a man **A**, who knew that **C** was a difficult girl, decided to have sex with her. He invited her for a beer, when she was drunk and became insensible, he proposed to her and she accepted. He then took her to his flat and had sex with her. An example of rape by sedation is **B**, who was **P**'s boyfriend. Every time **B** asked for sex **P** refused. One day, whilst they chatted, **B** added a sedative to **P**'s soft drink. When she slept, **B** had sex with her. Both examples above are common in 'date rape' between acquaintances and are very difficult to prove in a court of law.

As regards incest a study done in Chawama by Shah and Nkhama, 1996 found that of 100 girls, 50 of them have sexual relations with close relatives in the following distribution; cousins 80%, stepfather 70%, brother in law 50% (husband to sister), uncle 30%, father 10%, and neighbour 60%. They explained that when living with a stepfather or brother in law, it was not unusual for him to ask for sexual favours. The girl gives in because she had no choice and also because she wanted to secure her stay.

Father-daughter relationship was reported to be very rare, but does happen usually by force and sometimes with witchcraft implicated in the reasons. Brother-sister relationship was said to be possible up to about 10-12 years but never afterwards. Both girls and boys interviewed confessed that relationships with cousins were very, very voluntary and quite common. Since most girls having sex with close relatives did so with cousins, it was likely that a girl living with her aunt or uncle would have sex with her cousins. Of the 50% girls who have sex with relatives, 40% would have sex willingly and only 10% would be forced into it according to the girls (Shah and Nkhama, 1996). Indeed it would be interesting to again verify these findings in our study.

1.4 PROBLEM ANALYSIS DIAGRAM

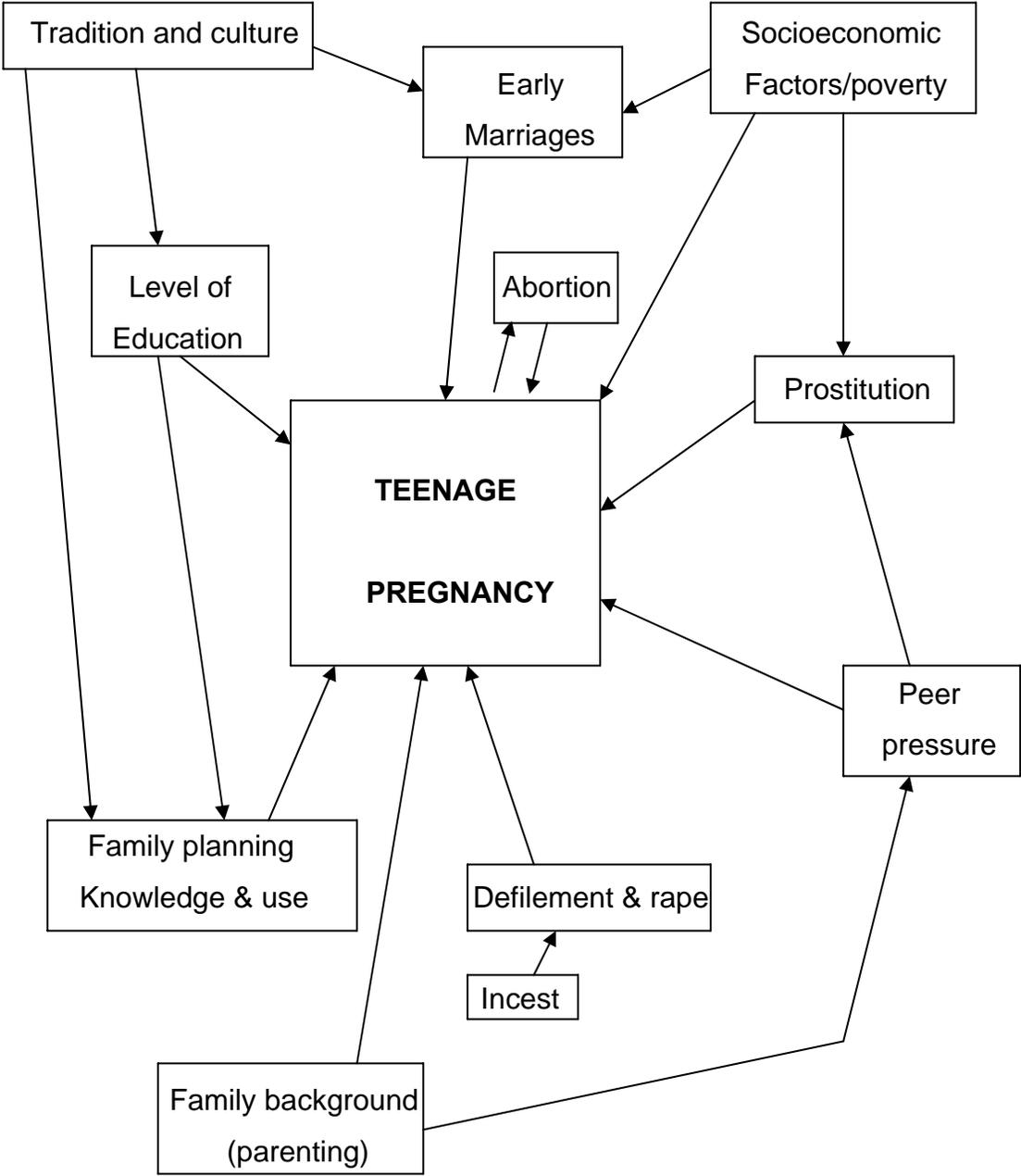


Fig 3.

1.5 CONCEPTUAL FRAMEWORK VARIABLE MATRIX

Table 2. Variable matrix table

DEPENDENT VARIABLE	DEFINITION	INDICATORS
Teenage pregnancy	Pregnancy in a girl aged Between 13 and 19 years	-Number of partners -Number of pregnancies -Marital status -Age lost virginity
INDEPENDENT VARIABLES	DEFINITION	INDICATORS
Early marriage	For purposes of this study, this refers to a married female below 18 years old	-Married or not -For how long? -Was it planned? -Is this the first time? -Any serious problems?
Level of knowledge	This is with reference to knowledge on contraception (family planning) and HIV/AIDS	-Types known -Access -Utilisation -Availability -Barriers -Myths -HIV/AIDS spread

Table 2, cont.

INDEPENDENT VARIABLES	DEFINITION	INDICATORS
<p style="text-align: center;">Defilement</p> <p style="text-align: center;">Rape</p> <p style="text-align: center;">Incest</p>	<p style="text-align: center;">Sex with female minor (Below 16 years old)</p> <p style="text-align: center;">Sex with non consenting female partner</p> <p style="text-align: center;">Sex between blood relatives</p>	<ul style="list-style-type: none"> - Ever been victim? -How many times? -Responsible person known? -Close relative victim? -Family/Police involvement -Possibility of being willing partner
<p style="text-align: center;">Tradition and culture</p>	<p style="text-align: center;">Factors attributable to cultural practices and rituals and considered normal and part part of tradition</p>	<ul style="list-style-type: none"> -Wife inheritance. -Wife cleansing. -Polygamy. -Marrying at 15 years. -Initiation rituals.

Table 2, cont.

<p>Prostitution</p>	<p>Sex for money</p>	<ul style="list-style-type: none"> -Engage in sex for money - Duration for the same -Any associated pregnancy -Number of partners per day -Any other reasons for the practice
<p>Peer pressure</p>	<p>Direct influence of friends</p>	<ul style="list-style-type: none"> -Pregnant friend in last 1 yr -History of STI or abortion in friends -Influence of friends in decision making -Reliability of friends' advice
<p>Socio-economic</p>	<p>Poverty as felt at individual level</p>	<ul style="list-style-type: none"> -Status of Guardian/breadwinner -Adequacy of support at home -Any economic support from boyfriend -Level of dependence on this support -More than 1 partner because of economic reasons -Presence of TV, fridge, electricity at home

Table 2, cont.

<p>Family background</p>	<p>This is in reference to poor parenting</p>	<ul style="list-style-type: none"> -Grow up with single/both parents or other guardian (specify) -Attitude of guardians or parents to school, friends and religious activities -Tendency to punish -Strictness by parents or guardians
<p>Education</p>	<p>Academic achievement</p>	<ul style="list-style-type: none"> -Highest level reached -If dropped out, why? -Ever been pregnant at school? -Understanding of female biology, hormones and menses (the connection)
<p>Attitude towards Abortion</p>	<p>Personal beliefs on abortion</p>	<ul style="list-style-type: none"> -Is induced abortion right or wrong? -Is it okay if done to continue school? -Ever been involved in (induced) abortion -Is it okay as form of contraception?

CHAPTER 2

2.0 RESEARCH QUESTION

What are the underlying factors attributable to teenage pregnancy in Lusaka urban district?

2.1 RESEARCH HYPOTHESES

- There is no difference in social-demographic and economic factors (i.e. early marriages, poor parenting background, poverty, peer pressure and education) between teenagers who get pregnant and those who do not.
- There is no difference in terms of knowledge, access, barriers and utilisation of contraceptives between teenagers who get pregnant and those who do not.
- There is no difference in exposure to illicit sex (i.e. prostitution, rape, incest and defilement) between teenagers who get pregnant and those who do not.
- There is no difference in terms of observation of tradition and cultural norms between teenagers who get pregnant and those who do not.

2.2 RESEARCH OBJECTIVES

GENERAL OBJECTIVE

To determine various attributes contributing to teenage pregnancy and suggest recommendations to reduce the same.

SPECIFIC OBJECTIVES

1. To compare extent of female teenagers' exposure to sex between those that are pregnant and those who are not.
2. To determine the role of social-demographic factors in contributing to teenage pregnancy (i.e. early marriages, family background, poverty, peer pressure and education).
3. To determine the association of level of knowledge, barriers, access and utilisation of contraceptives by female teenagers with teenage pregnancy.
4. To determine the role of tradition and culture in contributing to teenage pregnancy.
5. To determine the role of illicit sex (i.e. prostitution, incest, rape and defilement) in contributing to teenage pregnancy.

2.3 RESEARCH RATIONALE

- (a) Knowledge rationale; It is hoped this study will contribute to the body of knowledge on this subject of teenage pregnancy as the principal investigator has been unable to come across any local literature specifically covering this subject.
- (b) Public health rationale; With the obviously high numbers of teen pregnancy rates, it is hoped this study will help to influence Policy specifically as regards provision and access of contraceptives for our teenagers which is poor.
- (c) Academic rationale; As partial fulfilment of the degree programme of the Master of Public Health.

CHAPTER 3

3.0 METHODOLOGY

The Methodology of this research was explained in detail in the following sections.

3.1 RESEARCH DESIGN

- This research undertaking was a case control study type by design.

3.2 ELIGIBILITY CRITERIA FOR STUDY SUBJECTS

A clinic or hospital is one place where people attend voluntarily because of one need or another, rather than due to any form of coercion. Thus it was hoped subjects recruited from such an environment would provide barest minimum bias. The study population was female teenagers (13 to 19 years old) attending clinic/hospital at centers where antenatal services were also available.

The sample population was composed of two groups of mutually exclusive female teenagers which constituted cases and controls.

The cases were comprised of pregnant teenagers attending antenatal clinic at LUDHMT centres/clinics and UTH. The controls were comprised of female non pregnant female teenagers attending same clinics and UTH for any other ailment (preferably with no history of pregnancy or abortion).

Ideally, the intention was to match subjects (cases and controls) for the following characteristics;

- Age: (difference of not more than 1 year).
- Socioeconomic status: (by virtue of living in the same geographical area).
- Race

However, this failed so unmatched analysis was undertaken.

3.4 DATA COLLECTION TECHNIQUES

Data was collected using a structured questionnaire administered to selected pregnant teenagers for cases and non pregnant female teenagers for controls as explained above. The stage of pregnancy (early or late) was considered of no consequence in this matter.

Detailed information regarding various factors and independent variables considered to be at play was collected from the subjects.

Reliability and validity of the information collected was ascertained in the pilot study undertaken as discussed.

3.5 SAMPLE SIZE DETERMINATION AND SAMPLING PROCEDURE

SAMPLE SIZE DETERMINATION

Determination of sample size was through the following procedure;

A small pilot study was done with 28 cases and 28 controls using the standardised attached structured questionnaire. The quality and quantity of these responses in terms of proportions guided the principle investigator in calculating the actual sample size using the following equation:-

$$n = \frac{[P_1 Q_1 + P_2 Q_2]}{[P_1 - P_2]} \times f(\alpha \beta)$$

Where ; **P₁** = proportion of cases

$$Q_1 = (100 - P_1)$$

P₂ =proportion of controls

$$Q_2 = (100 - P_2)$$

Significance level (α) was set at 5%

Power of the study ($1-\beta$) was 95%

And the final result obtained was $n = 400$.

So $400 / 5$ sites = 80 participants per site with breakdown of 40 cases and 40 controls. In total this meant 200 cases and 200 controls. This was the sample size required to obtain the required power of the study.

SAMPLING PROCEDURE

Of the 10 centers under LDHMT with maternity and labor wards 4 of these with the highest delivery rates for teenagers were chosen to be sites for this study in addition to UTH which was the fifth site. Random sampling of subjects was conducted.

3.6 PLAN FOR DATA PROCESSING AND ANALYSIS

The coded data was double entered in Statistical Package for Social Sciences (SPSS).

The same Statistical Package for Social Sciences (SPSS) was used for data processing, analysis and manipulation.

Steps in the analysis of data were;

- Descriptive analysis of background variables to analyze the proportion of exposed and unexposed teenagers.
- Estimating the teenage pregnancy risk associated with the exposure using the chi-square method, i.e checking the strength of association between suspected predisposing factor to sex (exposure) and pregnancy with the p-value as the guide.
- Further analysis of the magnitude of this association by assessing the odds ratios.

3.7 ETHICAL CONSIDERATION

The following was not only considered but was enforced with regard to ethics as far as subjects were concerned;

- Obtained informed written consent.
- Total confidentiality of all the information gathered.
- No risk of trauma or injury to the subjects.
- Use of the gathered information for academic purposes and disseminating to relevant lawful stakeholders only.
- Subjects were recruited purely on voluntary basis only and without any form of coercion.

3.8 PRETEST

Before the actual research was conducted, pretest was done in two sites other than those where actual research was to be done for the following reasons:-

- To facilitate validation of the research instrument (questionnaire) and possible revision.
- To estimate the time frame for the project.
- To assess the competence of the research assistants.

3.9 STUDY LIMITATIONS

- Since the study was done in Lusaka only, the findings will have limited generalisability to the rest of the country.
- There was no way of validating a history of NO previous pregnancy or abortion in the control group.

CHAPTER 4

4.0 PRESENTATION OF FINDINGS (RESULTS)

4.1 Introduction

A total of 200 cases and 200 controls took part in this study representing 5 sites namely; Chawama, George, Matero and Kanyama compound as well as UTH. From each site, 40 cases and 40 controls were recruited.

There are 4 tables illustrating the important results and they are sub-divided in the following order: Tables 1(a) and (b) – Socio-demographic and economic factors, table 2 (contraceptives), table 3 (illicit sex) and table 4 (tradition and culture).

4.2 SOCIO-DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

Table 1(a) shows that there was a statistically significant difference between the ages of cases and controls ($p < 0.001$). The proportion of cases between the ages of 16 to 19 years was higher (93.5%) than the number of controls in the same age group 70.5%. Respondents who were in the age group above sixteen (the legal age for sexual consent), they were about 6 times more likely to be pregnant teenagers compared to respondents who were younger (OR = 6.0, CI = 3.0 – 12.0).

There was a significantly statistical difference ($p < 0.001$) between the cases and controls in relation to the age of loss of virginity. Respondents who were of age 16 years or older were about 3 times more likely to be cases compared to respondents who were younger (OR = 3.1, CI = 1.9 – 5.2)

The study showed that there was a statistical difference between the cases and controls ($p < 0.001$) in relation to marital status. More cases (55%) were married compared with a small proportion (7%) of controls (7%). Teenagers who were

married were 16 times more likely to be pregnant compared with teenagers who were single (OR = 16.2, CI = 8.5 – 31.4).

In terms of highest academic level attained, there was a statistically significant difference between the two groups ($p < 0.001$) as the proportion of cases who attained secondary school was lower (50.3%) compared with 62.8% for controls. Respondents who had attained secondary level of education were 50% less likely to be pregnant compared to respondents who had attained up to primary level of education (OR = 0.5, CI = 0.3 – 0.8).

Participants who had no knowledge on female physiology/hormones were about 6 times more likely to be pregnant compared to respondents who had knowledge (OR = 6.3, CI = 3.7 – 10.8).

Table 3: SOCIO-DEMOGRAPHIC FACTORS

Characteristics	Cases; Total=200		Controls; Total=200		P- value	Odds ratio	Confidence Interval
	n	%	n	%			
Participants' age							
13 to 15 years	13	68.5	59	29.5	<0.001	1	3.0-12.0
16 to 19 years	187	93.5	141	70.5			
Age lost virginity							
13 to 15 years	87	44.4	84	71.2	<0.001	1	1.9-5.2
16 to 19 years	109	55.6	34	28.8			
Marriage status							
Single	90	45.0	186	93.0	<0.001	1	8.5-31.4
Married	110	55.0	14	7.0			
Highest education Level							
Primary	98	49.7	63	32.1	<0.001	1	0.3-0.8
Secondary	99	50.3	123	62.8			
Has knowledge on female physiology/hormones							
No	173	87.4	101	52.3	<0.001	1	3.7-10.8
Yes	25	12.6	92	47.7			

Table 1(b), Socio-demographic and economic factors shows that participants who did not receive adequate support at home/school were almost 3 times more likely to be pregnant compared with participants who received adequate support (OR = 2.7 , CI = 1.8 – 4.2).

It was also noted in the study that there was a statistically significant difference ($p < 0.001$) between the two groups regarding the presence of a fridge at home with a fewer proportion of cases (33%) having a fridge at home compared with 57.4% of controls. The odds that the teenagers who did not have a fridge at home would be pregnant were 60% less likely compared to the controls (OR = 0.4, CI = 0.2 – 0.6).

Although relatively more cases (32.5%) than controls (24.9%) were influenced by close friends when it came to decision making, this was not statistically significant ($p = 0.093$). In this study also, there was no statistically significant difference ($p = 0.112$) between the proportion of cases and controls that grew up with both parents at (52.5%) of the cases and 60.4% of controls.

Compared to teenagers who had strict parents, there was a statistically significant difference between the cases and controls ($p < 0.024$) as the proportion of respondents who had strict parents (55.4%) among cases which was higher compared with 44.6% for controls. The odds that teenagers who had strict parents/guardians would get pregnant were 60% more likely compared to the controls (OR = 1.6, CI = 1.0 – 2.5).

There was a statistically significant difference ($p < 0.001$) between the two groups as a higher proportion of cases (31.8%) had not perceived positive influence from parents compared with controls 12.1%. The odds that teenagers who did not perceive positive influence from parents/guardians would be pregnant was 3 times more likely compared to the controls (OR = 3.4, CI = 1.9 – 6.0).

Table 4: SOCIO-DEMOGRAPHIC AND ECONOMIC FACTORS

Characteristics	Cases; Total=200		Controls; Total=200		P- value	Odds ratio	Confidence Interval
	n	%	N	%			
Economic Factors							
Received adequate support at home/school							
No	33	16.8	69	35.6	<0.001	1	1.8-4.2
Yes	164	83.2	125	64.4			
Has fridge at home?							
No	134	67.0	83	42.6	<0.001	1	0.2-0.6
Yes	66	33	112	57.4			
Peer Pressure							
Close friends have influence on participant							
No	135	67.5	148	75.1	0.093	-	-
Yes	65	32.5	49	24.9			
Parenting Factors							
Grew up with both parents							
No	95	47.5	78	39.6	0.112	-	-
Yes	105	52.5	119	60.4			
Very strict parents?							
No	60	43.5	78	56.5	0.024	1	1.0-2.5
Yes	138	55.4	111	44.6			
Positive influence from parents							
No	63	31.8	23	12.1	<0.001	1	1.9-6.0
Yes	135	68.2	167	87.9			

Table 2 shows that no significant associations were observed between knowledge of Depo Injection, Intra Uterine Device and Natural methods on one hand and pregnancy on the other. Furthermore, no significant associations were observed between problems in getting contraceptives of choice and abnormal bleeding on one hand and pregnancy on the other.

A statistically significant difference ($p < 0.001$) with more controls (60%) knew about condoms compared to 33.5% of the cases. The odds of getting pregnant was found to be 70% less likely for teenagers who knew about condoms than for teenagers who did not know about condoms (OR = 0.3, CI = 0.2 – 0.5).

A statistically significant difference ($p = 0.032$) was found with more cases (44.5%) who knew about combined pill compared with 34% of the controls. Teenagers who knew combined pill were 60% more likely to be pregnant compared to teenagers who did not know the combined pill (OR = 1.6, CI = 1.0 – 2.3).

A statistically significant difference ($p = 0.010$) between the groups was observed with fewer cases (0.5%) knowing about coitus interruptus compared with (4.5%) of the controls. The odds of getting pregnant were 90% less likely for teenagers who knew the method compared with teenagers who did not (OR = 0.1, CI = 0.01 – 0.9).

There was also a statistically significant difference ($p = 0.044$) with nil cases (0%) knowing about biological method compared with (2.0%) for controls (but unable to calculate odds ratios).

In this study, there was a significant statistical difference ($p = 0.011$) in terms of perception of hostility from nursing staff between the two groups. Teenagers who did not perceive hostility as issue from the nursing staff in accessing contraceptives were 60% less likely to be pregnant compared to teenagers who perceived otherwise (OR = 0.4, CI = 0.2 – 0.8)

There was a statistically significant difference between the two groups ($p = 0.004$) in terms of shyness in seeking access for contraceptives. The odds that teenagers who were not shy in seeking access to contraceptives were 50% less likely to be pregnant compared to teenagers who were shy in doing so (OR = 0.5, CI = 0.3 – 0.8).

As regards the perceived dangers of contraceptives, the following were the findings:

A statistically significant difference ($p=0.025$) with more cases 46.2% than controls perceiving infertility as a danger due to contraceptives. Teenagers who perceived infertility as a danger were 2 times more likely to be pregnant compared to teenagers who perceived otherwise (OR = 2.3, CI = 1.1 – 4.7)

A statistically significant difference ($p<0.001$) was observed between the two groups in terms of perception of weight gain. Teenagers who perceived that use of contraception leads to weight gain were 90% less likely to get pregnant compared to teenagers who perceived otherwise (OR = 0.1, CI = 0.1 – 0.4).

4.3 CONTRACEPTIVES

Table 5: CONTRACEPTIVE FACTORS

Characteristics	Cases; Total=200		Controls; Total=200		P- value	Odds ratio	Confidence Interval
	n	%	N	%			
Condoms							
No	133	66.5	80	40	<0.001	1	0.2-0.5
Yes	67	33.5	120	60.0			
Combined Pill							
No	111	55.5	132	66.0	0.032	1	1.0-2.3
Yes	89	44.5	68	34			
Depo Injection							
No	157	78.5	157	78.5	1.000	1	0.6-1.6
Yes	43	21.5	43	21.5			
Intra Uterine Device							
No	197	98.5	198	99.0	0.653	1.5	0.2-9.1
Yes	3	1.5	2	1.0			
Natural Method							
No	199	99.5	196	99.8	0.177	1	0.02-2.2
Yes	1	0.5	4	2.0			

Coitus Interruptus							
No	199	99.5	191	95.5	0.010	1	0.01-0.9
Yes	1	0.5	9	4.5		0.1	
Biological Method							
No	200	100.0	196	98.0	0.044	-	-
Yes	0	0	4	2.0			
Contraceptive factors (cont'd)							
Problems getting contraception of choice							
No	111	72.1	90	64.7	0.177	1	0.2-0.8
Yes	43	27.9	49	35.3		0.4	
Problem faced (hostility)							
No	186	93.0	170	85.0	0.011	1	0.2-0.8
Yes	14	7.0	30	15.0		0.4	
Problem faced (shyness)							
No	162	81.0	137	68.5	0.004	1	0.3-1.8
Yes	38	19.0	63	31.5		0.5	
Alleged known contraceptive dangers							
Infertility							
No	28	53.8	61	72.6	0.025	2.3	1.1-4.7
Yes	24	46.2	23	27.4			
Weight gain							
No	48	92.3	48	63.1	<0.001	1	0.1-0.4
Yes	4	7.7	31	36.9		0.1	
Abnormal bleeding							
No	45	86.5	70	82.4	0.517	0.7	0.3-1.9
Yes	7	13.5	15	17.6		1	

In Table 3 there was a statistically significant difference ($p < 0.001$) between the two groups in terms of the proportion of participants who had close relatives who were ever raped, defiled or involved in incest. Compared to teenagers who had relatives who were ever raped, defiled nor involved incest, teenagers who had relatives involved in such activities were 90% less likely to be pregnant (OR = 0.1, CI = 0.04 – 0.2).

There was a statistically significant difference ($p=0.003$) between the two groups in terms of the proportion of participants who were ever raped, defiled or involved in incest. Compared to teenagers who were ever raped, defiled nor involved incest, teenagers who were involved in such activities were 90% less likely to be pregnant (OR = 0.3, CI = 0.1 – 0.7).

There was no statistically significant difference ($p=0.156$) between the two groups in terms of the proportions of participants engaged in sex for money (prostitution).

4.4 ILLICIT SEX

Table 6: ILLICIT SEXUAL FACTORS

Characteristics	Cases; Total=200		Controls; Total=200		P- value	Odds ratio	Confidence Interval
	n	%	N	%			
Close family member of participant was raped or defiled							
No	194	97.0	141	73.1	<0.001	1 0.1	0.04-0.2
Yes	6	3.0	52	26.9			
Participant ever raped, defiled or involved in incest?							
No	193	97.0	172	89.6	0.003	1 0.3	0.1-0.7
Yes	6	3.0	20	10.4			
Participant ever engaged in sex for money?							
No	193	97.5	178	94.7	0.156	0.5	0.2-1.4
Yes	5	2.5	10	5.3			

In table 4, the study shows that there was a statistical difference between the cases and controls ($p<0.001$) in relation to agreeing to rituals of wife cleansing with more cases (91.5%) compared with a proportion of 67.9% of controls. The

respondents who did not agree with the ritual of wife cleansing were 5 times more likely to be pregnant compared to respondents who agreed (OR = 5.1, CI = 2.7 – 9.5).

The study also showed that there was no significant association between undergoing initiation ceremonies and knowing that initiation ceremony has a bearing on sexual debut on one hand and pregnancy on the other.

4.5 TRADITION AND CULTURE

Table 7: TRADITIONAL AND CULTURAL FACTORS

Characteristics	Cases; Total=200		Controls; Total=200		P- value	Odds ratio	Confidence Interval
	n	%	n	%			
Agrees with ritual of wife cleansing							
No	182	91.5	131	67.9	<0.001	1 5.1	2.7-9.5
Yes	17	8.5	62	32.1			
Underwent initiation ceremony							
No	141	70.9	139	72.8	0.674	1 0.9	0.6-1.5
Yes	58	29.1	52	27.2			
Initiation ceremony has a bearing on sexual debut							
No	119	63.3	108	57.4	0.246	1 1.3	0.8-2.0
Yes	69	36.7	80	42.6			

4.6 RESULTS OF A MULTIVARIATE LOGISTIC REGRESSION ANALYSIS

All the statistically significant variables in the earlier presented tables of results were further analyzed by multivariate backward logistic regression to control for confounders. Table 5 shows the results of this analysis;

Table 8: STATISTICALLY SIGNIFICANT RESULTS POST MULTIVARIATE BACKWARD LOGISTIC REGRESSION

Characteristics	Adjusted Odds Ratio	95% Confidence Interval
Participant age		
13 to 15 years	1	
16 to 19 years	0.3	0.2 – 0.5
Marital status		
Single	1	
Married	0.4	0.3 – 0.7
Contraceptive factors		
Knowledge on female physiology/hormones		
No	1	
Yes	3.2	2.0 – 5.2
Knowing condoms		
No	1	
Yes	2.0	1.4 – 2.9
Shyness to access contraceptives		
No	1	
Yes	1.5	1.0 – 2.3
Illicit sex		
Close family member raped or defiled		
No	1	
Yes	2.8	1.5 – 5.3

Tradition and cultural factor		
Accept ritual of wife cleansing		
No	1	
Yes	3.1	1.9 – 5.0
Economic Factor		
Status of breadwinner (employed)		
No	1	
Yes	2.3	1.3 – 4.2
Parenting factor		
Positive influence from parents/guardian		
No	1	
Yes	1.6	1.1 – 2.5

The results in table 5 will be described in the following context:

Respondents' age remained statistically significant after controlling for confounders with results among participants below 16 years showing the odds of 70% less chances to be pregnant compared to respondents between 16 and 19 years.

In terms of marital status, results were statistically significant with respondents who were single being 60% less likely to be pregnant compared to those who were married.

Respondents who did not have knowledge on female physiology or hormones were 3 times more likely to be pregnant compared to respondents with such knowledge. For the female teenagers who did not know about condoms, they were 2 times more likely to be pregnant compared to those who had knowledge about them after controlling for confounders. While for the respondents who had a problem of feeling shy to access contraceptives, these were 50% more likely to be pregnant than those who did not feel shy.

Those respondents who did not have a close family member raped or defiled were 3 times more likely to be pregnant compared to those who had. And those respondents who did not accept ritual of wife cleansing were 3 times more likely to be pregnant than those who accepted after controlling for confounders.

Respondents who had parents/guardians not in full time employment were 2 times more likely to be pregnant. And for respondents who did not appreciate positive influence from parents/guardians to be pregnant, the chances were 60% more likely for them to be impregnated compared to those who did appreciate such influence after reprimand or punishment.

CHAPTER 5

5.1 DISCUSSION

5.2 SOCIO-DEMOGRAPHIC CHARACTERISTICS

5.2.1 AGE OF PARTICIPANTS BY CASE

It is of serious concern that 6.5% of cases (pregnant teenagers) representing 13 of them were below 16 years old and direct results of defilement as defined in the literature i.e. sexual intercourse with a girl below 16 years with/without her consent (Daka, 2004). In this study, although the odds for teenage pregnancy are low below 16 years, it is still significant and an abrogation of the law.

Typically most women in Zambia became (become) mothers before the age of 20, with 60 to 70% in all age groups having given birth by that age (Mwanamwenge et al, 2004).

5.2.2 MARITAL STATUS

With 110 cases out of 200, it is clear that early marriage is a serious predisposing factor to teenage pregnancy in Lusaka. In marriage there is increased "legitimate" exposure to sex and hence pregnancy. In the literature Mutukwa et al (1994), through discussions with secondary school girls in Lusaka found that marriage was not considered a priority. In other literature in some rural areas of Zambia, reasons for early marriages included the encouragement by parents to avoid promiscuity and HIV/AIDS/STIs infection, inability to pay school fees and parents desire to obtain lobola (dowry) (*Chadiza*) and that married women were respected in society (*Mansa*) (Nsemukile et al. 1998). However, the cohorts (cases and controls) here were not restricted to secondary school pupils or girls from a rural setting but very diverse in composition hence this big difference of having 55% of cases married compared to 7% of controls in this study.

5.2.3 AGE LOST VIRGINITY

For controls, it is consoling to find almost 70 controls representing 35% were probably still virgins as question was not applicable to them. Among the controls the proportion that lost virginity was highest from the age of thirteen years with over four in one having lost virginity by then and was progressively going down till nineteen years implying that in this group the more sexually active were the younger than the older ones. On the other hand, loss of virginity among cases was progressively increasing with peak at eighteen years. This picture is not necessarily the same at national level as the median age at first sexual intercourse was 17 years for females and just about 18 years for males according to both Banda et al, 2003 and Mwanamwenge et al, 2004 meaning that on average half of females and males have had sexual intercourse. In this study, sexual debut was much earlier.

5.2.4 HIGHEST ACADEMIC LEVEL

Among the cases about half reached primary school with the other half also having reached secondary school while none at all reached tertiary level whereas among the controls achieving higher academic levels was a greater possibility compared to cases as about a third reached primary school, close to two-thirds reached secondary school and with one reaching tertiary level. This implied that although the difference is real, it is not a risk factor for pregnancy according to this study.

5.2.5 KNOWLEDGE ABOUT FEMALE HORMONES AND FUNCTION

Among the cases only a very low proportion constituting just over one in ten knew about female hormones and their function compared with nine in ten who were not. Among the controls, the distribution between those who knew and did not know was about equal (half to half). Thus ignorance of the female hormones and function seems to be a contributing factor to female teenagers getting pregnant with a risk estimate of two-fold. Again, this relatively ties in with the academic achievements of the two groups.

5.3 KNOWLEDGE AND CONTRACEPTIVE USE

5.3.1 AVAILABILITY OF CONTRACEPTIVES

The association between availability of contraceptives and teenage pregnancy among cases appears significant. Among the cases almost nine in ten felt that the contraceptives were readily available compared with eight in ten among controls who felt they were readily available. In the literature it has been shown that teenage may not use contraceptive services because of embarrassment; concern that parents may be informed; lack of anticipation of when intercourse will occur and indifference to becoming pregnant. In some instances they did not recognize the need to protect against the consequences of sexual activity (Woodward, 1995). Between the two groups there was NO statistically significant difference in terms of perception of availability of contraceptives.

5.3.2 CONTRACEPTIVE METHODS KNOWN

For some methods such as condoms, combined pill, coitus interruptus and biological method there was a statistically significant difference in terms of methods known between the two groups. More controls than cases knew about condoms, coitus interruptus and the biological methods whereas more case knew about combined pill than cases. For the other methods such as Depo injection, IUD and natural methods there was no statistical significant difference between the two groups. According to the study done in Chawama (Shah and Nkhama, 1996) half of 15 – 19 year old females who have used contraception started before they had any children. 98% of both men and women interviewed know at least one method. Knowledge of modern methods of family planning is higher than for traditional methods generally. Interestingly most girls knew about use of condoms for prevention of pregnancy but knew very little about other methods such as the pill (combined oral contraceptive pill) which was known mostly by older girls 17 – 20 years. However, they were aware of traditional forms of contraception such as; tying charms around the waist (from

traditional healers), drinking plant roots extracts, chewing boiled tea leaves and strangely enough drinking cooking oil (saladi). The risk estimate for pregnancy is increased by two-fold in each cases for cases with regards to less usage for condoms, coitus interruptus and biological methods according to this study..

5.3.3 BARRIERS TO ACCESSING CONTRACEPTIVES

Among the cases, the prominently cited barriers includes shyness while among the controls the prominently cited barriers includes fear of rebuke from health staff. However, there is no statistically significant difference between the two groups among the barriers cited. In the literature it has been shown that the Ministry of Health family planning services were used, almost exclusively, by married women (Banda et al, 2003) whereas a previous study on maternal health and family planning programs found 83% and 81% of healthcare providers expressed concern at providing family planning services to unmarried and teenage mothers respectively (Webb et al. 1996).

5.3.4 DANGERS OF CONTRACEPTIVES

In general, over half of the controls felt there were dangers associated with contraceptives while only about a third of the cases felt that way and this showed a statistically significant difference between the two groups. Few in both groups felt cancer and abnormal bleeding were a danger attributable to contraceptives though this was not a statistically significant difference between the two groups. When it came to the specific dangers, infertility was perceived to be more of a danger by the cases whereas weight gain was perceived more of a danger by the controls and this (weight gain) had the effect of increasing the risk estimate to pregnancy by two-fold according to this study.

5.4 ILLICIT SEX (DEFILEMENT, RAPE, INCEST AND PROSTITUTION)

5.4.1 PARTICIPANT EVER DEFILED, RAPED OR VICTIM OF INCEST

Among the cases only three in hundred accepted that they were victims of defilement, rape or incest whereas among controls the figure was higher at one in ten. In the literature as regards incest a study done in Chawama found that out of 100 girls, 50 of them had sexual relations with close relatives in the following distribution; cousins 80%, stepfather 70%, brother in law 50% (husband to sister's wife), uncle 30%, father 10%, and neighbour 60%. Of the 50% girls who had sex with relatives, 40% had sex willingly and only 10% would be forced into it according to the girls (Shah and Nkhama, 1996). Thus there appears to be little connection between rape/defilement among the participants and teenage pregnancy in this study.

5.4.2 ENGAGED IN SEX FOR MONEY

Very few cases admitted to this activity. However, it was of concern than twice as many controls were involved in this vice. This was perhaps due to the shame or stigma associated with sex work hence the probable under-reporting. This means the controls remain at risk of not only becoming pregnant but also getting HIV/AIDS. In the literature, there is prominent talk of economic exchange for sex but interestingly, none of the adolescents in the studies reviewed associated these examples of economic exchange with prostitution, a socially unacceptable activity in their eyes (Luke, 2003).

5.5 TRADITION AND CULTURE

5.5.1 AGREES WITH RITUAL OF WIFE CLEANSING

Among the cases nine in ten were not in agreement with this ritual whereas among the controls, just over two thirds did not agree with this ritual compared with just less than a third who agreed with this ritual. This means more of the cases than controls did not approve of this ritual. Perhaps, this was because majority of the controls were not married yet and did not understand the full implications of undergoing "wife cleansing".

5.5.2 UNDER-GO INITIATION CEREMONIES

Almost a similar proportion of cases and controls, just over seven in ten in both groups underwent initiation. In the literature, it was found that 96% of Bemba women and 100% of all Lozi women in a particular study in rural Zambia were exposed to puberty rites for sexual moral values otherwise known as “Chisungu” in Bemba and “Sikenge” in Lozi (Likwa, 2003). Perhaps the difference could be explained by the fact that being in an urban area fewer guardians are allowing their daughters to undergo these ceremonies compared to their rural folk. In this study participation in these ceremonies did not increase the risk estimate to get pregnant.

5.5.3 INITIATION CEREMONIES AND INFLUENCE ON SEXUAL ACTIVITIES

Among the cases, just over a third felt that puberty rites had a bearing on increased sexual activities while just less than two thirds felt that they did not, whereas among the controls more than four in ten felt that these rites had a bearing on increased sexual activities compared with just over half who felt they had no bearing. In this study there was no increased risk estimate due to early sexual debut due to initiation ceremonies.

5.6 POVERTY/SOCIO-ECONOMIC FACTORS

5.6.1 ADEQUATE SUPPORT AT HOME/SCHOOL

Among the cases more than eight in ten felt that there was adequate support at home/school whereas just over six in ten among controls felt that way. The irony is that more of the cases than controls were relatively economically secure as they received adequate support. This showed that despite more cases receiving adequate support than controls at home/school, they still got pregnant meaning that vulnerability due to economic reasons was perhaps not the major reason for getting pregnant. The literature suggested that there is a wider occurrence of transactional sexual relationships for the purpose of fulfilling

adolescent desires for status and gifts than for securing basic needs due to extreme poverty (Luke, 2003) and this appears to be true in this study.

5.6.2 DEPENDANCE ON BOY-FRIEND FOR SUPPORT

For the cases only about three in ten depended on financial support from boyfriends compared with seven in ten who did not whereas just over one in ten among controls depended on this support compared with over eight in ten who did not depend on this support. Unlike general adequate support at home/school, in both groups the majority did not depend on their boyfriends for support, it is clear that more cases than controls still depended on their boyfriends. In the literature, however, certain girls (who were independently more likely to engage in risky behaviours and experience poor health outcomes) may also have been more like to select older partners or engaged in transactional sex. One study identified partnerships that contained both age and economic asymmetries and found a decreased likelihood of condom use, compared with relationships that had no such asymmetries (Luke, 2003).

5.6.3 HOME HAS FRIDGE

Among the cases, two thirds of them did not have fridges at home while among the controls the proportion without fridges was lower (slightly above half). The lack of a fridge at home reflected a reduced level of socio-economic status and the risk estimate for getting pregnant was higher by one and a half times for cases. In the literature in Nepal, a study to determine socio-cultural determinants of teenage pregnancy found the affected girls were less educated, had poor economic back grounds and more likely to have accidental pregnancies (Sharma et al, 2002).

5.7 PEER PRESSURE

5.7.2 FRIENDS HAVE INFLUENCE IN DECISION MAKING

Among the cases only about a third were influenced by friends whereas among the controls, this was even less with only about one in four or a quarter being influenced. This is despite what the literature says about teenage pregnancy that it was associated with "behavioral contagion" which referred to an increased tendency for a behavior to be performed when socially related persons had already performed it (Jones, 1994). Additionally, peer knowledge is believed to be misguided and inaccurate (Akuffo, 1987; Bohmer and Kirumira, 1997; Fuglesang, 1997; Webb, 1997; Nyanzi et al. 2000). Literally, there was no significant difference between the two groups or an increase in the risk estimate for pregnancy in this study.

5.8 FAMILY BACKGROUND (PARENTING)

5.8.2 GROW UP WITH BOTH PARENTS

Among the cases just over half grew up with both parents compared with just below half who did not whereas among the controls about six in ten grew up with both parents compared with four in ten who did not. The presence of both parents it appears was a factor in minimizing teenage pregnancy. However, statistically there was no significant difference between the two groups. In the literature reports also indicated that lack of family continuity; strained parent-child interaction and family discord were associated with increased teenage sexual activity, non use of contraceptives and a higher likelihood of unplanned pregnancy. Teenagers in these circumstances were thought to be rebellious and seeking affection from sexual partnerships (Woodward, 1995). Other findings in the United States and New Zealand (for girls prospectively followed up from 5 – 18 yrs) found stronger evidence of impact of absence of the father at home on early sexual activity and teenage pregnancy (Ellis et al, 2003). This

doesn't seem to be obvious in this study nor does it seem to increase the risk estimate for pregnancy.

5.8.3 STRICTNESS OF PARENTS OR GUARDIAN

The association between serious strictness at home and teenage pregnancy was significant. Among the cases almost seven in ten had parents/guardians who were very strict, just fewer than three in ten with guardians who were a bit strict and a small proportion of guardians who were not strict at all. Among the controls almost six in ten had parents/guardians who were very strict and about a third a bit strict and a few not strict at all. However, the proportion of parents who were not strict at all though low was twice that for the cases compared to the controls. Thus, there was a statistically significant difference in this regard between the two groups.

5.8.4 POSITIVE EFFECT OF GUARDIANS' REPRIMANDS/PUNISHMENTS

Among the cases, almost seven in ten felt that this had added a positive effect compared with about three in ten who did not feel that way while among the controls the positive effect was felt by a higher proportion of almost nine of every ten compared with one in ten who did not appreciate. Thus, there was not only a statistically significant difference in this regard between the two groups but also a two-fold risk estimate to get pregnant by the cases compared to the controls. In the literature it was shown that overall the prevalence of sexual intercourse within the last 12 months was 14.9% (22.2% in males and 5.0% in females). Among males, the protective factors against having sex were being of age < 15 years (OR = 0.60, 95% CI 0.58, 0.62) and ever been drunk (OR = 0.63, 95% CI 0.59, 0.67). The risk factors for having sex among males were ever smoked (OR = 2.05, 95% CI 1.92, 2.19), having close friends (OR = 1.68, 95% CI 1.56, 1.81), currently drinking alcohol (OR = 1.13, 95% CI 1.06, 1.20), ever used drugs (OR = 2.36, 95% CI 2.24, 2.49) and parental supervision (OR = 1.30, 95% CI 1.25, 1.34). Meanwhile among female respondents, parental supervision was protective (OR = 0.88, 95% CI 0.81, 0.94) and the only risk factor was ever used drugs (OR = 2.85, 95% CI 2.57, 3.15) (Siziya et al, 2007).

CHAPTER 6

6.1 STUDY CONCLUSIONS BASED ON LOGISTIC REGRESSION ANALYSIS

Hypothesis I

- There's no difference in social-demographic factors (i.e. age, early marriages, poor parenting background, poverty/low socioeconomic status, peer pressure and education level) between teenagers who get pregnant and those who do not.

Conclusion

- Age: - There was a statistically significant difference between the two groups. Results among participants below 16 years showed the odds of 70% less chances to be pregnant compared to respondents between 16 and 19 years.
- Marriage: - There was a statistically significant difference between the two groups. Results showed respondents who were single being 60% less likely to be pregnant compared to those who were married.
- Low socioeconomic status/poverty: - There was a statistically significant difference between the two groups in terms of status of breadwinner. For those (breadwinners) who were not in gainful employment, the study showed that their teenage daughters or dependants were two times more likely to get pregnant than those whose breadwinners were in gainful employment.
- Parenting: - There was a statistically significant difference between the two groups when it comes to appreciating positive influence from parents/guardians as a result of reprimand or punishment. The study showed that the respondents who did not appreciate positive influence from parents/guardians were 60% more likely to get pregnant compared to those who did appreciate.

- Education: - There was a statistically significant difference between the two groups. However, although directly the association between education level and pregnancy was low, the related knowledge on female physiology and hormones showed that respondents who did not have knowledge on female physiology or hormones were 3 times more likely to be pregnant compared to respondents with such knowledge.

Hypothesis II

- There is no difference in terms of knowledge, access, barriers and utilisation of contraceptives between teenagers who get pregnant and those who do not.

Conclusion

- Knowledge: - Respondents who did not know about condoms were 2 times more likely to be pregnant compared to those who had knowledge about them after controlling for confounders.
- Barriers: - For the respondents who had a problem of feeling shy to access contraceptives, these were 50% more likely to be pregnant than those who did not feel shy.

Hypothesis III

- There is no difference in exposure to illicit sex (i.e. prostitution, rape, incest and defilement) between teenagers who get pregnant and those who do not.

Conclusion

- Rape, defilement and incest: - There was a statistically significant difference between the two groups. Those respondents who did not have a close family member raped or defiled were 3 times more likely to be pregnant compared to those who had. According to this study, this

finding shows there is association between illicit sex and teenage pregnancy although this does not necessarily imply causality.

Hypothesis IV

- There is no difference in terms of observation of tradition and cultural norms between teenagers who get pregnant and those who do not.

Conclusion

- Wife cleansing: - There was a statistically significant difference between the two groups. Those respondents who did not accept the ritual of wife cleansing were 3 times more likely to be pregnant than those who accepted after controlling for confounders. According to this study, this finding shows there is association between this ritual and teenage pregnancy although as above does not imply causality.

6.2 RECOMMENDATIONS OF THE RESEARCH

- According to conclusions from Hypothesis I, lack of knowledge on female physiology/hormonal function was shown to be a huge risk factor for teenage pregnancy. This is related to dropping out of school due to pregnancy itself which is a serious matter also. So, awareness and availability of contraceptives should not only be enhanced but the policy of allowing pregnant girls to return to school after delivery should be strengthened. Breadwinners' not being in gainful employment is another factor as this leads to poverty or low socioeconomic status which consequently predisposes to teenage pregnancy. Strategic girl child and women empowerment needs important attention to minimize dependence on the male folk. Positive influence from parents through parental reprimand and punishment should be encouraged. Parents at all

levels should be encouraged to discipline and guide their children as it has been shown to have deterrent effect on teenage pregnancy.

- Improved awareness on the methods of contraception available should be enhanced including sensitization on condoms. This should be done by also strengthening youth friendly corners in clinics where they exist or establishing them if they don't exist as a matter of policy as they can minimize the shyness and hostility noted among the controls. Also this awareness should be able to dispel the myths associated with the dangers of contraception.
- More controls were vulnerable to illicit sex (rape/defilement/incest) meaning they were at greater risk of getting pregnant over time as well as getting STIs /HIV. The need for awareness on this subject and heavy sentences in courts of law to deter perpetrators of defilement should continue to be advocated for. In addition an association was found between teenage pregnancy and illicit sex, therefore there is need to investigate further possible causality.
- Although no obvious evidence linking traditional practices such as wife inheritance and wife cleansing have been shown to have association with teenage pregnancy in this study, it is recommended these practices should be done away with in all cultures. This is in the interest of reducing on STIs and HIV transmission which are added benefits. For initiation ceremonies the picture is not so clear, so recommendation for more future research in this area is being made. Other areas which might need further research include more concepts to include assessing levels of awareness on contraception among school going girls.

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APPENDICES

QUESTIONNAIRE

**TITLE: DETERMINANTS OF TEENAGE PREGNANCY IN LUSAKA
URBAN DISTRICT**

001--- Questionnaire id. |_|_|_|

002--- Site _____

003--- Interviewer: Code _____ Name _____

004--- Date of interview |_|_|_|_|_|_|

Day Month Year

Official use only

Results code

Completed [1] Partially completed [2] Other [3]

Supervisors' signature _____

Date |_|_|_|_|_|_|

Day Month Year

INFORMED CONSENT FORM

INTRODUCTION

This form is meant to give you information about this study. Please make sure you read it or let someone read it to you. Ask questions where you are not clear. If you agree to participate in this study, sign or put a mark in the appropriate space. You are also free to refuse participation in this study if you don't feel like it. This will have **NO** influence at all on the care and treatment you are receiving at this centre.

PURPOSE OF RESEARCH AND PROCEDURES

This study is being carried out by Dr. Patrick Katayamoyo who is in the Department of Community Medicine of the School of Medicine, University of Zambia. Any queries on this study can be directed to him on the Departmental address, Box 50110, Lusaka. Cell No. 096-782301 and Email: pkatayamoyo@yahoo.com

This study aims to determine the commonest likely factors that lead to teenage pregnancy because of the serious complications that usually affect the young mothers before, during and after labour. It is hoped the findings will help in reducing these teenage pregnancies and their associated problems. The subjects to be recruited will be girls from 13 to 19 years old (teenagers) who are pregnant from antenatal clinics and controls will be of same age who come to the clinic for other problems and NOT pregnant. After signing the consent you will be asked to answer questions on the questionnaire by the interviewer. The whole process will take about 15-20 minutes.

RISKS AND BENEFITS

There are no risks that may arise from being a participant. You may benefit if you require more information especially on family planning (contraception) as you will be advised where to make a follow-up.

CONFIDENTIALITY

All the information including your name will be kept confidential and will not be made available to anyone not connected with the study. However you are free not to indicate your name as your questionnaire will be given a number.

Name.....

Signed.....(Participant)

Signed.....(Research
assistant/Investigator)

Signed.....(Witness)

Date.....

QUESTIONNAIRE

PERSONAL AND EDUCATIONAL DETAILS

1. How old are you? (Age last birthday)

Responses	Code
[1] 13 years	_
[2] 14 years	
[3] 15 years	
[4] 16 years	
[5] 17 years	
[6] 18 years	
[7] 19 years	

2. What is your marital status?

Responses	Code
[1] Single	_
[2] Married	
[3] Separated	
[4] Divorced	
[5] Widowed	
[6] Other (Specify) _____	

3. Is this your first pregnancy? If NOT pregnant, move to Question 5.

Responses	Code
[1] Yes	_
[2] No	

4. If this is **not** your first pregnancy, at what age was your first one?

Responses	Code
[1] 13 years or before	_
[2] 14 years	
[3] 15 years	
[4] 16 years	
[5] 17 years	
[6] 18 years	
[7] 19 years	

5. Roughly at what age did you lose your virginity?

Responses	Code
[1] 13 years or before	_
[2] 14 years	
[3] 15 years	
[4] 16 years	
[5] 17 years	
[6] 18 years	
[7] 19 years	
[8] Not applicable	

6. Did this pregnancy make you drop out of school/college?

Responses	Code
[1] Yes	_
[2] No	

7. If yes to above, what are the chances of you going back to school/college after this pregnancy?

Responses	Code
[1] Zero or nil	_
[2] 50% chance	
[3] Very good chance	

8. What is your highest academic achievement?

Responses	Code
[1] Primary level	_
[2] Secondary level	
[3] Tertiary level	

9. If you did not complete Primary or Secondary school, why?

Responses	Code
[1] No support	_
[2] Pregnancy	
[3] Failed exam	
[4] Other (specify) _____	

10. If you are still in school, have you ever been pregnant?

Responses	Code
[1] Yes	_
[2] No	

11. Do you know about the female biological system and organs such as the ovaries and uterus?

Responses	Code
[1] Yes	_
[2] No	

12. Do you know about the (female) hormones and how they affect the monthly period and pregnancy?

Responses	Code
[1] Yes	_
[2] No	

MARRIAGE

13. If NOT married before, skip to Question 17.

IFMARRIED is this your first marriage?

Responses	Code
[1] Yes	_
[2] No	

14. Did anyone push you to get married?

Responses	Code
[1] Yes	_
[2] No	

15. If yes, who and why?

Responses	Code
[1] Husband	_
[2] Your relatives	
[3] Other persons (specify) _____	

Why? Explain _____

16. You are married under which law? Customary (traditional) or civil law

Responses	Code
[1] Civil law	_
[2] Traditional law	

17. IF NOT MARRIED when do you intend to get married?

Responses	Code
[1] Within 6 months	_
[2] Within next 1 year	
[3] Within next 2 years	
[4] Other (specify) _____	

LEVEL OF KNOWLEDGE AND CONTRACEPTIVE USE

18. How many types of contraceptives (family planning) methods do you know?

Responses	Code
[1] Condoms	_
[2] Combined pill	
[3] Depo injection	
[4] Intra uterine device (IUD)	
[5] Natural (calendar) method	
[6] Coitus interruptus (withdrawal) method	
[7] Biological method	

19. Do you think the contraceptives are readily available?

Responses	Code
[1] Yes	_
[2] No	

20. Do you have any problems in getting contraceptives of your choice?

Responses	Code
[1] Yes	_
[2] No	

21. If there are any barriers to accessing contraceptives what are these?

Responses	Code
[1] Partner	_
[2] Funds	
[3] Availability	
[4] Religion	
[5] Other (specify) _____	

22. What type of problems do you have interacting with health staff (nurses) to get information on family planning and collect contraceptives?

Responses	Code
[1] Shyness	_
[2] Hostility (fear)	
[3] Poor communication	
[4] Other (specify) _____	

23. If you have problems above, do you think setting up youth friendly corners would help?

Responses	Code
[1] Yes	_
[2] No	

24. Do you know any serious problems or dangers associated with specific contraceptives?

Responses	Code
[1] Yes	_
[2] No	

25. If YES to above, what are these?

Responses	Code
[1] Cancer	_
[2] Infertility	
[3] Weight gain	
[4] Abnormal bleeding	
[5] Other (specify) _____	

DEFILEMENT, RAPE AND INCEST

26. Do you have a close member of your family who has ever been raped or defiled?

Responses	Code
[1] Yes	_
[2] No	

27. Have you ever been a victim of rape, defilement or incest?

Responses	Code
[1] Yes	_
[2] No	

If answer to above is NO move to Question 32.

28. If yes, who was responsible?

Responses	Code
[1] Known person (Relative)	_
[2] Known person (Non relative)	
[3] Stranger	
[4] Other (specify) _____	

29. How many times?

Responses	Code
[1] Once	_
[2] Twice	
[3] Three times	
[4] Four times or more	

30. Was the rape/incest reported?

Responses

Code

[1] Yes

[2] No

If not reported move to Question 32.

31. If the rape/incest was reported, where?

[1] Family/Neighbours

[2] Police

[3] Both

[4] Other (specify) _____

32. Was the perpetrator punished?

Responses

Code

[1] Yes

[2] No

Explain answer to above question

TRADITION AND CULTURE

32. Do you agree with the ritual of wife cleansing?

Responses

Code

[1] Yes

[2] No

33. Do you agree with the idea of wife inheritance?

Responses	Code
[1] Yes	<input type="checkbox"/>
[2] No	<input type="checkbox"/>

34. Would you agree to be in a polygamous marriage?

Responses	Code
[1] Yes	<input type="checkbox"/>
[2] No	<input type="checkbox"/>

35. Some girls marry before 15 years, do you think this is ok?

Responses	Code
[1] Yes	<input type="checkbox"/>
[2] No	<input type="checkbox"/>

36. Did you go through any initiation ceremonies on reaching puberty?

Responses	Code
[1] Yes	<input type="checkbox"/>
[2] No	<input type="checkbox"/>

37. Do you think they have a bearing on either early or late onset of sexual activities?

Responses	Code
[1] Yes	<input type="checkbox"/>
[2] No	<input type="checkbox"/>

Explain your answer to Question 37.

PROSTITUTION

38. Have you ever-engaged in sex for money?

Responses	Code
[1] Yes	_
[2] No	

If NOT skip to Question 43.

39. If yes to above, for how long?

Responses	Code
[1] Less than 6 months	_
[2] 6 months to 1 year	
[3] 1 to 2 years	
[4] More than 2 years	

40. What was the main reason for this?

Responses	Code
[1] Money	_
[2] Peer pressure	
[3] Pleasure	
[4] Other (specify) _____	

41. Have you ever been pregnant because of sex work?

Responses	Code
[1] Yes	_
[2] No	

42. On average how many partners per day?

Responses	Code
[1] One	_
[2] Two	
[3] Three	
[4] Four or more	

POVERTY / SOCIOECONOMIC ISSUES

43. What does your breadwinner or guardian do for a living?

Responses	Code
[1] Employed	_
[2] Business	
[3] Nothing	
[4] Other (specify) _____	

44. Does he/she offer adequate support at home and or school?

Responses	Code
[1] Yes	_
[2] No	

45. If married, move to Question 50.

IF NOT MARRIED, do you get any financial support from your boy-friend?

Responses	Code
[1] Yes	_
[2] No	

46. Do you actually depend on this support?

Responses	Code
[1] Yes	_
[2] No	

47. Does he give you much more financial support than you actually need (overwhelming support)?

Responses	Code
[1] Yes	_
[2] No	

48. Have you ever had more than one sexual partner at any one point in the past or now?

Responses	Code
[1] Yes	_
[2] No	

49. If yes to above, was it because of financial reasons?

Responses	Code
[1] Yes	_
[2] No	

50. Do you have these at home?

			Code
-Electricity	[1] Yes	[2] No	_
-Television (Colour/Black)	[1] Yes	[2] No	_
-Fridge	[1] Yes	[2] No	_

PEERS

51. Is your closest friend pregnant or been pregnant in the last one year?

Responses	Code
[1] Yes	_
[2] No	

52. Do your close friends influence you when it comes to decision making?

Responses	Code
[1] Yes	<input type="checkbox"/>
[2] No	

53. How reliable to you has their advice been in the past?

Responses	Code
[1] Very reliable	<input type="checkbox"/>
[2] A bit reliable	
[3] Not reliable	

54. Are any of your peers with a history of STI's, abortion or pregnancy?

Responses	Code
[1] Yes	<input type="checkbox"/>
[2] No	

If yes specify; _____

FAMILY BACKGROUND (PARENTING)

55. Did you grow up with both your parents?

Responses	Code
[1] Yes	<input type="checkbox"/>
[2] No	

If yes, move to Question 57.

56. If not, with whom did you grow up with?

Responses	Code
[1] Single parent	<input type="checkbox"/>
[2] Step parent(s)	
[3] Other guardian (specify) _____	

57. How strict were parents or guardians in trying to monitor your activities?

Responses	Code
[1] Very strict	<input type="checkbox"/>
[2] A bit strict	
[3] Not strict at all	

58. How likely were they in trying to punish or reprimand you when things didn't go right?

Responses	Code
[1] Very likely	<input type="checkbox"/>
[2] A bit likely	
[3] Not at all	

59. Do you think this affected you positively in the way you grew up and what you are now?

Responses	Code
[1] Yes	<input type="checkbox"/>
[2] No	