THE RELATIONSHIP BETWEEN LEVEL OF SEXUALITY OF WOMEN OF DIFFERENT LEVELS OF EDUCATION AND FERTILITY IN KAKAMEGA NORTH DISTRICT, KENYA

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ABSTRACT

Women sexuality versus their level of education has been an issue under consideration to most researchers in the Kenyan context. The purpose of the study was to statistically determine the relationship between level of sexuality of women of different levels of education and fertility in Kakamega North District. The study employed the sample survey method of data collection. Women of child bearing age formed the study population. The data collected was analyzed by use of Chi-Squares to test the degree of relationship between the variables of study and sexuality. Poisson Regression was also used to come up with a model of how the variables of study influenced fertility in the District. The study revealed a negative correlation between education and sexuality. It was evident from the analysis result that, women who had higher levels of education rate lowly in sexuality compared to their counterparts with low level of education. The findings are expected to be useful to policy makers in Kakamega North District when designing appropriate plan of action to encourage many women to pursue education to high levels. This is in line with vision 2030 for Kenya to improve economically.

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Introduction

In order to be economically independent and stable, women need to have a good level of education in Kenya. This not only enhances their economic independence but also helps them understand the importance of having a manageable family size, which they can feed and educate. With high fertility rates in Kenyan rural communities such as Kakamega North District, a lot of strain has been put on the available resources, which has led to increased poverty amongst many. Enhancement of women's education would help in controlling the population growth in the District, hence would enable the Stakeholder in the District to be able to implement its development agenda by catering for its citizens needs effectively, and in the process reduce poverty in the District. It was therefore necessary to carry out this research in Kakamega North District. This was geared towards helping to sensitize the inhabitants of the district on education of the girl child, as key towards smaller family sizes, which would in turn lead to proper upbringing of children, better health conditions and reduction of poverty hence promoting development.

Up to 1970s, the fertility in sub – Sahara Africa remained high with an average total fertility rate of about 6.7 births per woman and the differences between countries and regions were modest. Over the past quarter century, significant fertility declines have occurred particularly in Eastern and Southern Africa, while fertility has remained at high pre-transitional levels in many countries in Western and Middle Africa (Bongaarts, 2010). The total fertility rates of individual countries in 2000–2005 ranged from a high of 7 births per woman in Niger to below 3 births in South Africa (United Nations, 1995). In addition, fertility is usually higher in rural, than in urban areas, higher among the uneducated than among the educated women, and higher in households with low, rather than high incomes (Rutstein, 2002, Merrick, 2001)

It is also widely believed that education affects fertility through a number of indirect ways such as, delaying the age at first marriage and also increasing the practice and effectiveness of contraception (Jejeebhoy, 1995). Education is thought to enhance women's autonomy and control over childbearing decisions through conjugal relationships and increased control over economic resources (Jejeebhoy, 1995, Stromquist, 1998). Moreover, while fertility remains high in Africa as a whole, this is changing in several parts of the continent, most notably in Southern Africa and Kenya (Watkins, 1995). The fertility decline in South Africa and in Kenya has been attributed to a number of factors such as increased use of contraceptives, the rising age at

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marriage, and the higher levels of education for women in countries like Zimbabwe, Botswana, and Kenya, relative to the rest of the continent. In Kenya the TFR decreased from as high as 6.7 for women with no education to as low as 3.1 for women with at least some secondary education (Republic of Kenya -2009(KDHS), 2008-2009). This rapid fertility decline in Kenya has received a great deal of attention from demographers over the past decade (Watkins, 1998). Comparing to neighboring Tanzania and Uganda, Kenya has achieved a higher level of economic development and a higher level of educational attainment for girls at the primary and secondary levels, which are factors that may help explain the fertility transition underway in the country (UNICEF, 1999).A study done in Central Kenya, revealed that women with high level of educational attainment experience lower fertility levels (Mathenge, 2008). In Western Kenya, increase in schooling led to a decrease in fertility (Duflo, Dupas and Kremer) .Many studies that have been done in Kenya have revealed that fertility is declining in many areas due to rising levels of education of women. On the contrary, this is not the case in Kakamega North District. Kakamega North District From the literature review, it was noted that the relationship between education of women

and fertility was negative. Education was realized to be operating through the five determinants namely; Woman's Sexuality, Contraception, Induced Abortion, Sterility and Post Partum Insusceptibility to reduce fertility. It was also noted that the main reason why developing countries have always had high populations was because many females dropped out of school early, due to early pregnancies, and then afterwards, ended up into early marriages. This encouraged them to give birth to many children, as compared to their counterparts who proceeded with their education to higher levels. Exploring the relationship between women's education and fertility in the Kakamega North District had not yet been done, since such data was absent. This motivated the current study. This knowledge gap if filled will help the stake holders in the Kakamega North District when planning on how to encourage females to continue with their education to high levels with a view to reduce fertility in the District.

Methodology

This chapter covers research methodology under the following topics; research design, target population, sample size and sampling procedures, methods of data collection (research instrument), administration of the instrument, techniques of data analysis and operational definition of variables.

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Research design

Descriptive and Correlation designs were used in this research. Descriptive design was used because the research involved collection of information by administering of questionnaire to a sample of women from households (Kombo and Tromps, 2006), after which, the current status of affairs was determined. Correlation design was used to assess the degree of relationship that existed between two or more variables in the study. The researcher surveyed households and gathered information as per the sample frame. The researcher used primary data which was obtained by use of questionnaires.

Target Population

A population is an entire group of individuals, events or objects having a common observable characteristic. The target population was women of child bearing age in Kakamega North District. The District had five Divisions which were made up of thirteen Locations and twenty nine Sub Locations.

Sampling procedures, Study population and Sample size

Sampling Procedures

A sample is a subset of a population. The study used the probability sampling technique where multi – stage cluster sampling design was employed.

Division	Location	Sub-Locations		
Kabras North	Chegulo	1. Chebwai	2. Matsakha	
	Sirungai	1. Tombo	2. Manda	3. Shiandiche
	Shivanga	1.Fuvuye	2.Teresia	~ ~ .
Kabras	Shirugu	1. Samitsi	2. Malekha	
Central	Mugai	1. Sundulo	2. Lukala	
	Matioli	1. Shipala	2. Tande	
Kabras West	Lukume	1. Lukala West	2. Shikutse	3. Shimuli
	Burundu	1. Mutsuma	2. Sawawa	
Kabras South	Mahira	1. Shamberere	2. Shamoni	3. Chevoso
	Shianda	1. Mukhonje	2. Shilongo	
Kabras East	East Kabras	1. Kimang'eti	2. Lukhokho	

The Kakamega North District has its administrative boundaries as follows



Chesero	1. Lwanda	2. Kakunga
Chimuche	1. Musingu	2. Chimoroni

The district had five geographical boundaries called Divisions, these acted as clusters. The clusters were heterogeneous in nature.

Simple random sampling was used to come up with three clusters which were:

Kabras West Division, Kabras North Division and Kabras South Division.

From the three clusters, there were seven Locations as follows:

Lukume , Burundu , Shivanga , Chegulo , Sirungai , Mahira , Shianda.

which were all selected at the second stage.

At the third stage of cluster sampling, one Sub Location was selected from each of the Locations by simple random sampling.

The following Sub Locations were then formed the sample frame:

Lukala West, Sawawa, Shiandiche, Fuvuye, Chebwai, Shamberere, Muhonje.

The women from the selected Sub Locations households formed the sample population.

The advantage of this method was that it needed a sample frame for selected clusters only, rather than for the entire target area, which saved on travel costs and time as well.

Sample size

The study targeted the women of child bearing age of Kakamega North District whose population was 38,537 persons as had been projected by the Kakamega North District Development Plan (2008-2012). The population was divided among the five Divisions as follows: Kabras West- 4262 persons, Kabras East-9158 persons, Kabras Central-8886 persons, KabrasNorth-9702 persons, Kabras South-6529 persons. The three Divisions which were selected at stage one, seven Locations selected at stage two and the seven Sub Locations which were selected at stage three , had their populations of women of child bearing age put in brackets as outlined in the table below.



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Division selected	Location Selected	Sub Location	Sub Location selected
at Stage one	at stage two		at Stage three
Kabras West (4262)	Burundu (2131)	Mutsuma (710)	Sawawa (710)
		Sawawa (710)	
		Shimuli (711)	
	Lukume (2131)	Lukala West	Lukala West (1066)
		(1066)	
		Shikutse (1065)	
Kabras North (9702)	Chegulo (3234)	Chebwai (1617)	Chebwai (1617)
		Matsakha (1617)	
	Sirungai (3234)	Tombo (1078)	Shiandiche (1078)
		Manda (1078)	
	1000	Shiandiche (1078)	
	Shivanga (3234)	Teresia (1617)	Fuvuye (1617)
0.000		Fuvuye (1617)	
Kabras South (6529)	Mahira (3264)	Shamoni (1088)	Shamberere (1088)
	1 - 1	Chevoso (1088)	
	1.	Shamberere (1088)	
	Shianda (3265)	Muhonje (1632)	Muhonje (1632)
		Shilongo (1633)	
TOTAL	20,493	20,493	8,808

Sample Size determination

The clusters selected at the final stage were seven with differing numbers of women of reproductive age; the sample size was thus determined by proportionally calculating the number

of samples to be taken from each cluster. This was determined by use of the formula, $n = \frac{2 pq}{d^2}$,

which was adopted from Mugenda and Mugenda (1999).

The n, z, p q, and d in the formula represented the following;

n = desired sample size.

Z = standard normal deviate set at 1.96 at 95% confidence level.

P = the proportion in the target population estimated to have a particular characteristic.

95% of the women population of Kakamega North District are at child bearing ages (15-49).

q = 1-p

d = degree of accuracy desired which is 95%

If desired n population is less than 10,000 persons then sample size is calculated as follows;

 $n_{\rm f} = \frac{n}{1 + \frac{n}{N}}$

 $n_{\rm f}$ = desired sample size if less than 10,000

N = Total number of households in the sample frame

In our case the desired n population was 120 households, which was less than 10,000, hence, desire sample size was determined by;

$$n_{f} = \frac{n}{1 + \frac{n}{N}}$$
 thus $n_{f} = \frac{120}{1 + \frac{120}{8808}}$
 $n_{f} = \frac{120}{1.014}$

 $n_{f} = 119$

The sample was then proportionally allocated to the selected clusters as follows:



Research instrument

The data was collected by use of Questionnaires. The questionnaires had both closed and open ended questions to enable the respondent to be free in providing the needed information to guide the research study.

Pilot testing

The data collection tool was tested in Isanjiro Sub Location which had similar characteristics with the target group. The updated data collection tool was then used to collect data from the sampled population. Cluster sampling was used to come up with the study population. Equal chances were given to all households in the study area.

Techniques of Data analysis

Data analysis refers to a variety of activities and processes that a researcher administered to make certain decision regarding the data collected from the field. This is done in order to get meaning from data collected and to be able to explain various features from the raw data.

The study applied both qualitative and quantitative approaches. Statistical package for social sciences software (SPSS) .A high significance value (below 0.05) indicated existence of a relationship between the study variables. R- Programming language was also used to analyze the data. Poisson Regression Analysis was used to determine the significance of various factors while the chi-square was also used to determine if there was a relationship between the variables.

Operational definition of variables

In this study, independent variables included; level of Sexuality of women of different levels of education, level of Contraceptive use by women of different levels of education, level of Sterility of women of different levels of education and level of Post Partum Insusceptibility of women of different levels of education.

Operational definition of variables

Objective Research	Variable	Type of	Data	Data Analysis
Question		Information	Collection	
			Instruments	
1. Is there a relationship	Independent	-Age at 1 st intercourse	Questionnaire	Descriptive
between level of	Sexuality	-Age at 1 st marriage		Analysis
Sexuality of women of				
different levels of				
education and fertility in	Dependent	Number of births	Questionnaire	Descriptive
Kakamega North				Analysis
District?				



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2. Is there a relationship	Indonondont	over	Quastionnaira	Descriptivo
2. Is there a relationship	Independent	-evel used	Questionnane	
between level of	Contraceptive	contraceptives		Analysis
Contraceptive use by	use	-used contraceptives to		
women of different		stop or to space child		
levels of education and		births		
fertility in Kakamega	Dependent	Number of births.	Questionnaire	Descriptive
North District?				Analysis
3. Is there a relationship	Independent		Questionnaire	Descriptive
between level of Sterility	Sterility of	- frequency of coitus in		Analysis
of women of different	women	the last five years.		
levels of education and	Dependent	Number of births	Questionnaire	Descriptive
fertility in Kakamega				Analysis
North District?	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -			
	1 m - 1			
4. Is there a relationship	Independent	- number of	Questionnaire	Descriptive
between level of Post	Post Partum	breastfeeding during		Analysis
Partum Insusceptibility	Insusceptibility	the day		
of women of different		-Period of exclusive		
levels of education and		breast feeding		
fertility in Kakamega		-Duration of abstinence	1.000	
North District?		after birth		
	Dependent	Number of births	Questionnaire	Descriptive
				Analysis

Model for Analysis (Case Study of Onoja and Osayomore's Work)

This study involved a statistical investigation of education on fertility, the work of Onoja and Osayomore (2012),entitled,"Modelling of Determinants of Fertility Among Women of Child Bearing Age in Nigeria" was therefore found to be very useful to borrow from. In their study, generalized linear model (Poisson Regression Model) and a Natural Log link function was used to explore the extent to which determinants of fertility affected the level of fertility among women of child bearing age in Nigeria. In this Analysis, the dependent variable was level of fertility. The predictor variables were divided into two categories as follows; proximate determinant of fertility: current marital status, age at first marriage, age at first sexual intercourse, age at recent sexual intercourse, post partum amenorrhea, abstinence and insusceptibility, age at first birth as well as use of contraceptives. Next, the Sociodemographic variables which were found to significantly impact on the level of fertility. These included: place

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of residence (Rural or Urban), Individual Wealth Index (poor, average, rich), Household Wealth Index (poor, average, rich – measured as the median wealth index of all members of the household to which a respondent belongs), highest educational status and whether a husband lived in the house with the woman.

Data Management and Editing

A total of 33,385 women age 15 - 49 years participated in the Nigeria Demographic Health Survey (NDHS). Also, a total of 10 variables were listed as proximate determinants of fertility. Unfortunately variables such as post partum amenorrhea, abstinence and insusceptibility and recent sexual activity had missing observations, and were removed from the modeling process, which brought the total sample to 20,974 women. This was 62.8% of the total women interviewed in the 2008 NDHS.

Statistical Modeling

Given the count nature of their dependent (outcome) variable, a generalized linear model (GLM) with a natural logarithmic link function was used. Poisson regression was adopted to assess how the predictor variables influence the level of fertility. Specifically,

Let y_i denote the number of children ever born by a woman i, of child bearing age and t_i denote the observation time for the ith woman.

Let λ_i denote the mean rate of children per unit time so that the mean number of children for the i^{th} woman is given by $\lambda_i t_i$.

Since \mathbf{v}_i gives an aggregate count of children ever born, it was assumed to have a Poisson distribution with log of the mean given by;

$$\ln E(y_i) = \ln (\lambda_i t_i)$$

$$= \ln \lambda_i + \ln t_i$$

$$= B_o + \sum_{j=1}^p B_j X_{ji} + \ln t_i$$
(3.1)

Where:

 x_{ii} is the jth characteristic (predictor variable) of the ith woman.

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B_o is an intercept term

B_i represent measures of the effects of the predictor variable

ln t_i is an offset variable

In this study, the current age of the woman was the time at which observation for the number of children ever born was made on the ith woman, since these differed across women, the offset Variable was set to ln (current age).The Equation (3.1) show that the main part of the model (consisting of all the terms except for the offset term), is modeling the rate of the children born by women of child bearing age per unit time.



The modeling process involved four stages; in the first stage, the predictive ability of each variable was assessed using simple Poisson regression models. The second stage involved a multiple Poisson regression model consisting of only the selected sociodemographic variables found to posses individual predictive capability in order to reaffirm their contributions when other sociodemographic characters are adjusted for. In the third stage, only the proximate determinants of fertility were used in the modeling exercise. This was to assess the effect of each proximate determinant on fertility in the presence of others. The final step consisted of a multiple Poisson regression modeling using the selected sociodemographic characters (found to be significant in the third model) and the proximate determinants of fertility. In the modeling processes, the category assumed to have low level fertility was referenced in order to study the likelihood of having high level of fertility in the population. Incidence rate ratio (IRR) with 95% confidence interval (CI) was used to assess the association of the selected demographic variables and the proximate determinants with fertility. The models were investigated using the HYBRID (encompassing both Fisher and Newton – Raphson methods) procedure of the SPSS with a robust covariance (standard error) estimator in the SPSS software (version 20). Estimates of the corrected Akaike's Information Criterion (AIC) and the Bayesian Information Criterion (BIC)

provided with the output of the analysis from the SPSS were used for goodness of- fit- test. A lower value of AIC or BIC indicated a better fit of the model.

The Generalized Linear Model Results

The table below shows the results of the association of variables with the Level of Fertility that was modeled by Onoja and Osayomore, (2012)

	Model for the	Model for	Model for	Full Model
	individual	Selected	NDHS	
	variable	Sociodemographic	Proximate	
		factors	determinants	
			Of fertility	
Variables	Wald chi-	Adjusted	Adjusted	Adjusted
	square	IRR(95% CI)	IRR(95% CI)	IRR(95% CI)
Age of	2181.48***			
respondent	1 7 - 1			
at first birth	1 1	and the second		
<15			1	
15-30			0.82(0.81-	0.83(0.81-
			0.84)***	0.84)***
30-49			0.39(0.37-	0.42(0.39-
			0.42)***	0.45)***
Current	136.02***			
Contraceptive			100	A
method				
No				
Yes		131	1.02(1.01-	0.91(0.90-
		/ T []	1.04)**	0.93)***
Current	80.31***			
Marital				
Status				
Married				
Living together			1.24(1.17-	1.18(1.12-
			1.32)***	1.26)***
Number of	468.24***			
other				
Wives				
None				
≥ 1			0.91(0.91-	0.95(0.94-

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			0.92)***	0.96)***
Age at first	1966.28***			
Marriage				
<15				
15-30			0.85(0.84-	0.91(0.89-
			0.86)***	0.92)***
30-49			0.82(0.76-	0.90(0.85-
			0.87)***	0.97)**
Age at first	1611.937***			
intercourse				
<15				
15-30			0.89(0.87-	0.91(0.89-
	-		0.90)***	0.92)***
30-49			1.09(1.07-	0.90(0.85-
	1. T. M. 1973		1.11)***	0.97)***
Type of place	447.79***			
of residence				
Urban		and the second		
Rural		1.02(1.00-1.04)*	1	1.02(1.00-1.03)
			~ ~	
Highest	2516.839***			
education	and the second se		100 C	
Level			100	A
		A A		
No education		AVE	LC /	
Primary		1.48(1.43-1.53)***		1.36(1.32-
	v		$1 \sim q$	1.41)* <mark>*</mark> *
Secondary		1.47(1.42-1.52)***		1.38(1.34-
				1.42)***
Higher		1.19(1.15-1.22)***		1.17(1.13-
				1.20)***
Religion	809.67***			
Christianity				
Islam		0.98(0.94-1.02)		1.00(0.96-1.05)
Others		1.03(0.98-1.07)		1.03(0.98-1.07)
Ethnicity	1797.45***			
Hausa				

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Igbo		1.02(1.01-1.04)*		1.01(1.10-1.03)
Yoruba		1.00(0.98-1.02)		1.01(0.99-1.03)
Others		0.82(0.81-0.84)***		0.85(0.84-
				0.87)***
Personal	1180.76***			
Wealth Index				
Poor				
Average		1.04(1.02-1.06)***		1.05(1.03-
				1.07)***
Rich		1.04(1.02-1.06)***		1.04(1.03-
				1.06)***
Household	27.92***			
Wealth Index				
Poor				
Average		1.06(1.01-1.11)*		1.06(1. <mark>01-1.11)*</mark>
Rich	1 - 2 - 7	1.06(1.01-1.11)*		1.06(1.01 <mark>-1.11)*</mark>
Husband Lives	200.570***		-	
<mark>in Hou</mark> se	1	ALC: NO.	_	
No			1	
Yes		1.09(1.06-1.11)***	1	1.07(1.05-
		. •		1.10)***
AICC		85064.68	84198.94	82927.79
BIC		85183.92	84278.43	83118.56

The * gives the level of significance of the variables. Thus, the variable with *** is a more significant determinant of the dependent variable, followed by the one with ** and then lastly the variable with *.

The results above showed that all variables studied individually were significant predictors of fertility. Among the variables was the level of education which showed that women with secondary, primary education or no formal education respectively had 1.19, 1.47 and 1.48 times more children compared to those who had completed tertiary education and that poor women had 1.04 times more children than the rich women while women from poor households had 6% higher fertility compared to those from rich households. The present study involved the investigation of the extent to which level of education of women operated through determinants of fertility to affect fertility of women of child bearing age in Kakamega North District, Kakamega County.

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Results

Relationship between Level of Sexuality of women of different levels of education and Fertility in Kakamega North District.

Whether or not the start of marriage coincides with the initiation of sexual intercourse and thus the beginning of exposure to the risk of pregnancy, first marriage is an important social and demographic indicator of fertility. This is because age at first marriage represents the point in a person's life when childbearing first becomes welcome.

Age at first sexual interco	ourse		
			Total
			Total
	1-20 years	20 to 30 years	
			_
primary	47	2	49
secondary	38	9	47
diploma or higher	22	2	24
	107	13	120
	Age at first sexual interco primary secondary diploma or higher	Age at first sexual intercourse 1-20 years primary 47 secondary 38 diploma or higher 22 107	Age at first sexual intercourse1-20 years20 to 30 yearsprimary472secondary389diploma or higher22210713

Table 4.2 Age at First sexual intercourse versus level of education

Age at first Sexual Intercourse is defined as the age at which the respondent first had coitus. Age at First Marriage is defined as the age at which the respondent began living with her first spouse or partner.

Marriage is a leading social and demographic indicator of the exposure of women to the risk of pregnancy, especially in the case of low levels of contraceptive use. It is therefore important in determining how a woman's sexuality affects fertility. Populations, in which Age at First Sexual Intercourse and Age at First Marriage are low, tend to be populations with early childbearing and high fertility.

Table 4.2 presents the counts of women who were married by specific ages in relation to their levels of education. 47 out of 120 women who got married at age 1 to 20 years had primary education compared to 23 who got married at an age between 20 to 30 years. The result from Table 4.2 therefore showed that women with low level of education engaged in Sexual Intercourse at much younger ages. It is also evident in Table 4.2 that 2 of those who had their

first sexual intercourse at age 20-30 years were those who had Diploma and above level of education. The result from Table 4.2 also showed that as the level of education increases, age at first sexual intercourse also increases. There is thus a positive relationship between the age at first sexual intercourse and level of education.

Table 4.3 Relationship between age at First sexual intercourse and level of Education – Chi-square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.507 ^a	2	.033
N of Valid Cases	120		

Table 4.3 shows a chi-square test results that sought to determine the relationship between the level of education and Age at First sexual Intercourse. The results indicate that there is a significant relationship between the level of education and the Age at First sexual Intercourse P < 0.05 (df=2, P= 0.033).

Relationship between the Age at First Sexual intercourse and the Number of Children born to a woman.

Table 4.4.	Age at	First Sexu	al Intercour	se versus	Number o	of Children	born t	o a	woman
1 4010 4.4.	inge at	I II St DUAL	ai mici coui	se versus.		or children	DOLU C	U a	woman

		Number of	Number of children born to a woman			
		0-2	3-4	5-6	7 and above	
Age at	1-19 years	1	1	16	1	19
first sexual	20-49 years	45	15	14	9	83
intercourse	50 and above years	5	1	1	11	18
Total		66	17	16	21	120

The results in Table 4.4 shows that the number of children born to a woman decreases as the age at first sexual intercourse increases. For instance majority of women who had their first sexual intercourse at the age of 1 to 19 years reported to have 5-6 children. Most of women who had their first sexual intercourse at the age of 20-49 years had 0-2 children. It was thus evident from

table 4.4 that as age at first sexual intercourse increases, the number of children born reduces, which presented a negative relationship between the two variables.

Table 4.5 Relationship between Age at First Sexual Intercourse and Number of Childrenborn to a woman - Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	86.461 ^a	6	.001
N of Valid Cases	120		

Table 4.5 shows a chi-square test results that sought to determine the relationship between the age at first sexual intercourse and the number of children born to a woman. The results indicate that there is a significant relationship between the number of children born to a woman and the age at first sexual intercourse P < 0.05 (df=6, P = 0.001)

Coefficient of determination of age at first sexual intercourse versus number of children born model.

Coefficient of determination measures the explanatory power of the independent variables.

Model summary

		Std. Error of
Model	R Square	the Estimate
1	.208	.74003

dependent variable=number of children born,

independent variable =age at first sexual intercourse

R square is 0.208 thus the model is 20.8% explained by the independent variable.

Conclusion

Results of Table 4.2 indicate that 47 out of 120 women who got married at age 1 to 20 years had primary education compared to 23 who got married at an age between 20 to 30 years. It is also evident in Table 4.2 that 2 of those who had their first sexual intercourse at age 20-30 years were those who had Diploma and above level of education. The result from Table 4.2 also showed that

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as the level of education increases, age at first sexual intercourse also increases. There is thus a positive relationship between the age at first sexual intercourse and level of education. The results of Table 4.3 indicate that there is a significant relationship between the level of education and the age at first sexual intercourse P < 0.05 (df=2, P= 0.033). The results in Table 4.4 shows that the number of children born to a woman decreases as the age at first sexual intercourse increases. The Table reveals that majority of women who had their first sexual intercourse at the age of 1 to 19 years reported to have 5-6 children. Most of women who had their first sexual intercourse at the age of 20-49 years had 0-2 children. It was thus evident from table 4.4 that as age at first sexual intercourse increases, the number of children born reduces, which presented a negative relationship between the two variables. The results of Table 4.5 indicate that there is a significant relationship between the number of children born to a woman and the age at first sexual intercourse P < 0.05 (df=6, P = 0.001).



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