Global Scientific JOURNALS

GSJ: Volume 8, Issue 4, April 2020, Online: ISSN 2320-9186
www.globalscientificjournal.com

FACTORS CONTRIBUTING TO TEENAGE PREGNANCY IN NINE AND TWELVE YEARS BASIC EDUCATION SCHOOLS IN GASABO DISTRICT, RWANDA

First Author, NGEZAHOGUHORA Ildephonse,

Author Details

NGEZAHOGUHORA Ildephonse, Student at Mount Kenya University, program of master of public health (MONITORING AND EVALUATION)

KeyWords: Factors, Cases, Controls, Nine and twelve years basic educations schools, Pregnancy, Teenage, Teenager

ABSTRACT

This study was an attempt to assess factors contributing to teenage pregnancy in nine and twelve years basic education schools in Gasabo District.In Rwanda, teenage pregnancy differs across the provinces: the proportion of young women who have begun childbearing varies from a low of 5 % in North to a high of 11% in East. The present study provides a holistic data and information on the sexual behaviour among teenagers in nine and twelve years' basic education. These factors were identified through a case control study design. The target population included 138 cases and 276 Controls. A questionnairewas used to collect data and STATA 16 was used to analyze these data while a descriptive statistic was employed to summarize them through frequencies and percentages. To investigate the factors associated with teenage pregnancy Logistic regression analysis was performed. Of 138 teen mothers who participated in this study 110(79.7%) were aged 18 and 19 years old, 38(27.5%) give birth when they were in senior 3. The majority of respondents were Christian. For socio-demographic factors associated with teenage pregnancy ,the results have proven that teenagers in bracket of 18-19 age had higher risk of becoming pregnant compared to those aged 14-15 yearsage category (P-value<0,001: 18-19 years with COR: 10,09, CI 95% [3,5-28,92].Another factor associated with teenage pregnancy in Gasabo District was education level parents, forfather the study provide a P-value > 0,001: vocational with COR 0.35, CI 95% [0.16-0.73] and secondary (P-value<0,001 with COR: 0.10, CI 95% [0,04-0,23].Considering economic factors, the study found one protective factor which is for a teenage to live in the family who had a highly monthly income with COR: 0.15, CI 95% [0.05-0.51] at P-value > 0,001 comparatively to those who livein poor families with a monthly income less than 10000.For sexual and reproductive health factors, the study found out that low Knowledge about sexual reproductive health, absence of basic needs and peer pressure are factors associated with early pregnancy. (P-value<0,001: Knowledge about contraceptive with COR 0.20 CI 95% [0.11-0.37], (P-value<0,001: absence of basic needs with COR 0.26, CI 95% [0.12- 0.55] and P-value <0,001: eencouragement of friends to engage in sexual activities with COR 0.44 CI 95% [0.29-0.67].

Background-Teenage pregnancy is an issue to the health and future of the young mothers. Adolescents' mothers are more likely to suffer complications related to pregnancy and less likely to treat them; they are also exposed to bigger risk during delivery which may even cause death due to reasons related to childbearing.
Since 2001 in Europe, teenage pregnancy rates have declined., Although development has been uneven across regions and countries, Part et al (2013) argue that Eastern Europe has the greater average teenage pregnancy

proportion (41.7/1000) than Northern (30.7/1000), Western (18.2/1000) and Southern Europe (17.6/1000).
The Rwanda health Survey (2014-2015) revealed that the proportion of teen girls who have begun childbearing has decreased from 11% in 1992 to 7 %in 2000 and 4 % in 2005, but this proportion has again shown slight increase from 6 % in 2010 to 7 % in 2014-15 (RDHS)

Methods-A case- control study with descriptive statistics where frequencies and percentages distribution were established. For factors associated with teenage pregnancy, logistic regression was used to describe the relationship between variables.
Bivariable logistic regression (with odds ratios and 95 percent confidence intervals) was calculated to assess the strength of the association between dependent and independent variables. The significance of the association was considered in P value <0.05.

Results- The results proven that there is a high association between age and teenage pregnancy where we have age category with P-value >0.001:18-19 years with COR:2.29.CI95% [1.21-3.97], the higher pregnancy teenage were among girls who had 18-19 age with 76.09% of cases. Students who studied in S4 and S5 were more exposed to teenage pregnancy (P- value >0.001: S5 with COR: 2.19, CI 95 % [1.7-7.10]. None case of unplanned pregnancy was founded among teenagers who had parents with high education. Here we founded that a high education level of parents as a protective factor. Where we have secondary school of mother with a P –value >0.0011 with COR:0,11, CI 95% [0.05-0.25] the same as high level of monthly income (P-value>0.001:>100.000 rwf with COR :0.15, CI95%.

Conclusion-. The factors associated with unplanned pregnancy among teenagers girls in nine and twelve year's basic education school in Gasabo District were identified to be associated whit socio-demographic, socio-economic and sexual and reproductive health factors.
The factors associated with teenage pregnancy in our study were absence of basic needs for teenagers girls, being in the 18–19year age group, not communicating with parents on reproductive health issues, low level of knowledge about sexual and reproductive health and peers pressures.

Introduction

Globally, teenage pregnancy is an issue to the health and future of the young mothers. Adolescents' mothers are more likely to suffer complications related to pregnancy and less likely to treat them; they are also exposed to bigger risk during delivery which may even cause death due to reasons related to childbearing. According to the report provided by World Health Organization (WHO) 11% of the total births were recorded from women aged 15-19 years (WHO 2014). For The United Nations Population Fund (UNFPA), around 95% of teenage pregnancies occur in developing countries with 36.4 million women becoming mothers before age 18 (UNFPA, 2013).

In 2010 the birth rate in USA was 34.3 births per 1000 women aged 15-194. The reported teenage pregnancy rate in South Asian countries like Bangladesh, Nepal and India are 35%, 21% and 21% respectively (Fahmida Shirin Papr et al 2016).

Since 2001 in Europe, teenage pregnancy rates have declined., Although development has been uneven across regions and countries, Part et al (2013) argue that Eastern Europe has the greater average teenage pregnancy proportion (41.7/1000) than Northern (30.7/1000), Western (18.2/1000) and Southern Europe (17.6/1000).

In East African Community, a demographic health survey conducted in 2011, concluded that teenage pregnancy is recorded at 24.5 % in Uganda, 6 % and in Rwanda it's recorded at 6%. In Tanzania, women begin bearing in their teenage years with 23 % of women aged 15 – 19 years (East African Community, youth policy, 2013).

In Rwanda teenage pregnancy differ from one province to another. According to the research done by CLADHO (2016) the lowest adolescent fertility is in North province (5%) and the highest is in East province (11%).

The Rwandan Demographic Health Survey concluded that pregnancy among teenage girls shows an increase from 6.1% to 7.3 % (RDHS, 2014/2015). This issue call upon everyone to make it urgent and to play his/her role in moving back the tendency and save the adolescent girls from possible effects like dropping out of school, communicable diseases that sometimes may result to death.

Efforts have been made by the Government of Rwanda and different stakeholders through campaigns and request for concentrated efforts for the fight against teenage pregnancy since it has immediate and long –long-

term socio-economic consequences for teen mothers, children and the whole community. Regardless of efforts, measures and actions taken to fight teenage pregnancy, this issue is persisting a real challenge for young girls mainly these enrolled in nine and twelve years' basic education. To date no published studies investigated the factors associated with teenage pregnancy in Rwanda, specifically among school adolescents from twelve years basic education program. Therefore, there is a need to investigate factors associated with teenage pregnancy among these adolescent girls.

METHODS

STUDY DESIGN, SITE AND POPULATION

A case-control study design was used to assess factors contributing to teenage pregnancy among adolescent of nine and twelve years basic education schools of Gasabo District. City, the capital of Rwanda which has a dual nature of rural and urban zones. The rural zone represents over 90% of the surface of the District with 66% of the entire population. The study was conducted among all female student aged from 13-19 years old .4676 female students who had been pregnant while enrolled in nine and twelve-year basic education during the academic year 2018 (Cases)(and 15116 students who have never been pregnant while enrolled in nine and twelve-year basic education during the academic year2019(Controls)

Study procedures

After securing the permission to collect data from Gasabo District, first of all we were contacted the in charge of the community health worker (WHW) at District level and she linked us with the community health workers at village level. The CHW helped us to approach the initial subjects and a Snowball sampling was used generate additional subjects until we reach 138 teen mothers (Cases).

For the control, we approached the head of nine and twelve years basic education schools and explained about the study purpose and data collection process. From potential participants, we approached them to explain what the research is about and what researchers are expecting from them. To participate, students and teen pregnant were requested to take an informed consent and assent form for signature. Once consent form provided, participants were provided with an anonymous questionnaire to fill during lunch time for student in school and at promised time for these who had been pregnant.

Statistical Analysis

Data were analysed using Stata which consisted mainly of frequencies and percentages. Before analysing Data, collected data were first organized, cleaned and entered electronically.Moreover, based on the objectives of the study, data were analysed to generate results in form of descriptive statistics where frequencies and percentages distribution were established. For factors associated with teenage pregnancy, logistic regression was used to describe the relationship between variables.

Bivariable logistic regression (with odds ratios and 95 percent confidence intervals) was calculated to assess the strength of the association between dependent and independent variables. The significance of the association was considered in P value <0.05. The research findings were presented in form of tables. Categorical data were described using percentages

Result and discussion

Socio demographic characteristics of cases and controls

The results illustrated in the table 4.1 showed that the majority of interviewed teenagers were in S3, 38 (27.5 % of cases and 101(36,6 %) of controls)A large number of interviewed were Christians with at rate of 94.9 % amongcases and 97.10%among control**,** while a low proportion among them were Muslim (5.10 %amongcases

and 1.81% among controls)**.** Concerning the education level of parents, a high number did primary school whit 66 (61.70 %) of cases and83 ,31.90% of controls among father and 89 (72.40%) of cases and 100 (38.5%) of cases among mothers. The majority of interviewed live with both parents 56(40.6 %) of cases and 162(58.70 %) of controls,

Table 1: Socio-Demographic characteristics of cases and controls

Variables	Teenage pregnancy Cases n (%)	Controls n (%)	Total N (%)
Age group			
14-15	4(2.90)	47 (17)	51 (12.3)
16-17	24(17.39)	101 (36.6)	125 (30.2)
18-19	110(79.71)	128 (46.4)	238 (57.5)
Class level			
S3	38(27.54)	101(36.59)	139(33.5)
S4	47(34.06)	86(31.16)	133(32.13)
S5	33(23.91)	40(14.49)	73(17.63)
S6	20(14.49)	49(17.75)	69(16.67)
Religion			
Christian	131(94.93)	271(98.19)	402(97.1)
Muslim	7(5.07)	5(1.81)	12(2.9)
Education Level of the father			
Primary	66(61.68)	83(31.92)	149(40.6)
Vocational	11(10.28)	40(15.38)	51(13.9)
Secondary	7(6.54)	90(34.62)	97(26.43)
Higher	0(0.00)	25(9.62)	25(6.81)
None	23(21.50)	22(8.46)	45(12.26)
Education level of the mother			
Primary	89(72.36)	100(38.61)	189 (49.50)
Vocational	12(9.76)	38(14.67)	50 (13.10)
Secondary	8(6.50)	80(30.89)	88 (23.00)
Higher	0(0.00)	24(9.27)	24 (6.30)
None	14(11.38)	17(6.56)	31 (8.10)
Whom do you live with			
Both my Parents	56(40.58)	162(58.70)	218(52.66)
My Mother	68(49.28)	78(28.26)	146(35.66)
My Father	10(7.25)	34(12.32)	44(10.63)
Others	4(2.90)	2(0.72)	6(1.45)

Socio-Economic characteristics of cases and controls

The main occupation of parents of interviewed was self-employed among both parents. where there is 35 (53%) of cases and 105(53.60%) of controls among fathers and 58 (47.90%) of cases and 143 (56.10%) of controls among mothers.The results proven that 53 (39.80%) of cases and 113(41.90%) of controls lived in the family with monthly income less than Rwf 10000, 65(48.90%) of cases and 80(29.60%) of controls lived in the family who got a monthly income which is between Rwf 10000-50000. While none case and only 4.8% of controls got

monthly income greater than Rwf 150000.

Table 2: Economic Characteristic of cases and controls

Variables	Teenage pregnancy Cases n (%)	Controls n (%)	Total N (%)
Father Occupation			
Agricultural	25(37.88)	63(32.14)	88(33.59)
Self employed	35(53.03)	105(53.57)	140(53.44)
Civil servant	6(5.08)	21(8.90)	27(7.63)
Mother occupation			
Agricultural	25(37.88)	63(32.14)	88(33.59)
Self employed	56(47.46)	142(60.17)	198(55.93)
Civil servant	6 (5.00)	21 (8.90)	27 (7.50)
Monthly income of family			
<10000	53 (39.80)	113 (41.90)	166 (41.20)
10000-50000	65 (48.90)	80 (29.60)	145 (36.00)
50000-100000	12 (9.00)	35 (13.00)	47 (11.70)
100000-150000	3 (2.30)	29 (10.70)	32 (7.90)
>150000	0 (0.00)	13 (4.80)	13 (3.20)
Watch TV at Home			
Yes	61 (44.20)	148 (53.60)	209 (50.50)
No	77 (55.80)	128 (46.40)	205 (49.50)
Time to watch TV at Home			
Once a week	11 (18.00)	53 (36.10)	64 (30.80)
Two time a week	29 (47.5)	32 (21.80)	61 (29.30)
Everyday	21 (34.40)	62 (42.20)	83 (39.90)
Duration to reach school			
Under one hour	81 (58.70)	177 (64.10)	258 (62.30)
One hour and above	57 (41.30)	99 (35.90)	156 (37.70)
Means of transport to/back school			
On foot	77 (55.80)	182 (65.90)	259 (62.60)
By car	6 (4.30)	31 (11.2)	37 (8.90)
By motorcycle	52 (37.70)	61 (22.10)	113 (27.30)
By bicycle	3 (2.20)	2 (0.70)	5 (1.20)

Reproductive health characteristics of cases and controls

From the results, majority interviewed teenage girls 93 (67.40 %) of cases and 159 (57.6%) of controls do not communicate with their parent on sexual issues. Few of cases (21.70%) cases have never heard about family planning.

Among interviewed girls,125 (90.6%) cases and 181 (65.6%) controls knew the contraceptive methods that may allow overcoming the pregnancy. 65 (54.40) among cases confirmed to have used contraceptive method while 35.7% of cases and 32.7% of controls did not use them due to the none access to them.

Among cases, 87 out of 138 have been encouraged by their peers in sexual activities and all interviewed have information about health problem that may result from teenage pregnancy

Table 3: Sexual reproductive health Characteristic of cases and controls

Variables	Teenage pregnancy		Total
	Cases n (%)	Controls n (%)	N (%)
Communication with parents on sexual issues			
Yes	45 (32.60)	117 (42.40)	162 (39.10)
No	93 (67.40)	159 (57.60)	252 (60.90)
ever heard about family planning			
Yes	108 (78.30)	153 (55.40)	261 (63.00)
No	30 (21.70)	123 (44.60)	153 (37.00)
Knowledge about contraceptive			
Yes	125 (90.60)	181 (65.60)	306 (73.90)
No	13 (9.40)	95 (34.40)	108 (26.10)
Use of contraceptive			
Yes	68 (54.40)	58 (32.00)	126 (41.20)
Nom	57 (45.60)	123 (68.00)	180 (58.80)
None use of contraceptive			
Do not have access	25 (35.70)	71 (32.70)	96 (33.40)
Do not have knowledge	22 (31.40)	61 (28.10)	83 (28.90)
Family influence	23 (32.90)	85 (39.20)	108 (37.60)
ledge about fertility window for getting pregnant			
Yes	98 (71.00)	197 (71.40)	295 (71.30)
No	40 (29.00)	79 (28.60)	119 (28.70)
Age at which they have got their first pregnancy			
10-15	17 (12.30)	N/A	17 (12.30)
16-17	71 (51.40)	N/A	71 (51.40)
18-19	50 (36.20)	N/A	50 (36.20)
Pregnancy planned or not			
Unplanned	138 (100)	N/A	138 (100)
Better age to give birth			
16-19	4 (2.90)	11 (4.00)	15 (3.60)
20-23	79 (57.20)	159 (57.60)	238 (57.50)
24-27	45 (32.60)	95 (34.40)	140 (33.80)
Above 28	10 (7.20)	11 (4.00)	21 (5.10)
Family conditions that can contribute to teenage pregnancy			
Absence of parents	22 (15.90)	15 (5.40)	37 (8.90)
Poverty of the family	56 (40.60)	59 (21.40)	115 (27.80)
Absence of basic needs	40 (29.00)	105 (38.00)	145 (35.00)
Home violence	9 (6.50)	84 (30.40)	93 (22.50)
Family conflict	11 (8.00)	13 (4.70)	24 (5.80)

Friends encouragement to be engaged in sexual activities			
Yes	87(63.0%)	118(42.8%)	205(49.5%)
No	51(37.0%)	158(57.2%)	209(50.5%)
Source of financial assistance when in need			
Relatives	58 (55.20)	83 (64.80)	141 (60.50)
Teachers	12 (11.40)	7 (5.50)	19 (8.20)
Friends	35 (33.30)	38 (29.70)	73 (31.30)
Health problem that may result from teenage pregnancy			
High blood pressure	6 (4.30)	6 (2.20)	12 (2.90)
Miscarriage	11 (8.00)	31 (11.20)	42 (10.10)
STI/HIV infection	78 (56.50)	176 (63.80)	254 (61.40)
Depression	36 (26.10)	59 (21.40)	95 (22.90)
Anemias	7 (5.10)	4 (1.40)	11 (2.70)

Socio-demographic factors associated with teenage pregnancy in Gasabo District

Table 4: Socio-demographic Factors associated with teeage pregnancy in Gasabo

Variables		COR	P-Value	AOR	P-Value
Age Category (n=414)	14-15	1		1	
	16-17	2.79(0.91-8.50)	0.071	2.68(0.26-27.64)	0.142
	18-19	10.09(3.5-28.92)	<0.001	11.32(1.16-110.19)	0.004
Class Level (n=414)	S3	1		1	
	S4	1.45(0.87-2.43)	0.156	2.77(0.79-9.78)	0.149
	S5	2.19(1.21-3.97)	<0.001	2.01(0.47-8.72)	0.626
	S6	0.376(0.57-2.06)	0.803	1.39(0.33-5.84)	0.461
Religion (n=414)	Christian	1		1	
	Muslim	2.90(0.90-9.30)	0.074	3.03(0.59-15.45)	0.182
Education level of Father (n=367)	Primary	1		1	
	Vocational	0.35(0.16-0.73)	0.005	0.51(0.12-2.24)	0.001
	Secondary	0.10(0.04-0.23)	<0.001	0.10(0.02-0.46)	<0.001
	Higher				
Education level of Mother (n=382)	None	1.31(0.67-2.56)	0.422	1.76(0.34-9.05)	0.716
	Primary	1		1	
	Vocational	0.36(0.18-0.72)	0.004	0.41(0.08-2.22)	0.355
	Secondary	0.11(0.05-0.25)	<0.001	0.25(0.04-1.70)	0.012
	Higher				
Who they live with(n=414)	None	0.93(0.67-1.18)	0.842	0.35(0.04-3.28)	0.375
	Both Parents	1		1	
	Mother	2.52(1.62-3.94)	<0.001	0.41(0.02-8.71)	0.822
	Father	0.85(0.39-1.83)	0.68		
	Others	5.79(1.03-32.45)	0.046		

Risks factors associated with teenage pregnancy in nine and twelve-year basic education school in Gasabo District were education level of father (P-value>0,001: vocational with COR 0.35, CI 95% [0.16-0.73] and Secondary (P-value<0,001 with COR: 0.10, CI 95% [0,04-0,23], Education level of Mother (P-value>0,001: vocational with COR: 0.36, CI 95% [0.18-0.72] and Secondary (P-value<0,001 with COR: 0.11, CI 95% [0,05-0,25].

The reduced logisticregression model showed one risk factor associated with teenage pregnancy and one protective factor. The risk factor was age category (P-value>0,05: 18-19years with AOR: 11,32, CI 95% [1,16-110,19] while the protective factor was education level of father (P-value>0,05: Secondary with AOR: 0.10, CI 95%

[0,02-0,46].

Economic factors associated with teenage pregnancy in Gasabo District

Table 5: Socio-Economic factors associated with teenage pregnancy in Gasabo District

Variables		COR	P-Value	AOR	P-Value
Father Occupation (n=262)	Civil servant	1		1	
	Agricultural	1.85(0.68-5.01)	0.225	1.59(0.21-12.05)	0.531
	Self employed	1.56(0.59-4.07)	0.368	2.08(0.35-12.26)	0.340
Mother Occupation (n=354)	Civil servant	1		1	
	Agricultural	2.69(1.02-7.10)	0.046	2.21(0.17-28.03)	0.420
	Self employed	1.38(0.12-0.71)	0.51	2.78(0.25-30.42)	0.340
Monthly income of family (n=403)	<10000	1		1	
	10000-50000	1.73(1.09-2.75)	0.02	2.02(0.77-5.27)	0.005
	50000-100000	0.73(0.35-1.52)	0.422	3.53(0.5-24.81)	0.041
	>100000	0.15(0.05-0.51)	0.002	1	
Watching TV at Home (n=414)	Yes	1		1	
	No	1.46(0.97-2.20)	0.071	1	
Frequency of watching Tv (n=413)	Once a day	1		1	
	Two time a week	4.37(1.92-9.93)	<0.001	7.10(0.38-131.13)	0.958
	Everyday	1.63(0.72-3.69)	0.24		

The output results of the full logistic regression model provided the following values: mother occupation (P-value>0,001: Agriculture with COR 2.69, CI 95% [1.02-7.10], Family monthly income (P-value>0,001: 10000-50000 with COR: 1.73, CI 95% [1,09-2,75] and rate of watching television at home (P-value<0,001: two time a week with COR: 4.37, CI 95% [1,92-9,93]. One factor identified as risk protector, teenagers living in the families who had a highly monthly income seems to be less exposed to teenagers' pregnancy comparatively to those who came from poor family with COR: 0.15, CI 95% [0.05-0.51].

Sexual and reproductive health factors associated with teenage pregnancy

Table 6: Sexual and reproductive health factors associated with teenage pregnancy

Variables		COR	P-value	AOR	P-Value
Communicate with parents on sexual issues (n=**414**)	Yes	1		1	
	No	1.52(0.99-2.33)	0.055	1.09(0.05-23.23)	**0.021**
Having heard about family planning (n=**414**)	Yes	1		1	
	No	0.35(0.23-0.55)	<**0.001**	1.75(0.21-14.76)	0.403
Knowledge about contraceptive (n=**414**)	Yes	1		1	
	No	0.20(0.11-0.37)	<**0.001**	0.28(0.14-0.54)	0.933
Using contraceptives (n=**306**)	Yes	1		1	
	No	0.40(0.25-0.63)	<**0.001**	1	
Knowing fertility window for getting pregnant (n=**414**)	Yes	1		1	
	No	1.02(0.65-1.60)	0.939	1.20(0.64-2.23)	0.186
Age they think it is better to give birth (n=**414**)	16-19	1		1	
	20-23	1.37(0.42-4.43)	0.52	0.46(0.13-1.62)	0.256
	24-27	1.30(0.39-4.32)	0.43	0.72(0.2-2.64)	0.476
	Above 27	2.5(0.6-10.44)	1.26	1	

	Absence of parents	1		1	
	Poverty of the family	0.65(0.31-1.37)	0.256	0.61(0.23-1.62)	0.98
Family conditions that can contribute to teenage pregnancy (n=**414**)	Absence of basic needs	0.26(0.12-0.55)	<**0.001**	0.28(0.11-0.72)	0.642
	Home violence	0.07(0.03-0.19)	<**0.001**	0.06(0.01-0.25)	
	Family conflict	0.58(0.20-1.63)	0.299	0.46(0.13-1.59)	0.559
Encouragement of friends to engage in sexual activities (n=**414**)	Yes	1		1	
	No	0.44(0.29-0.67)	<**0.001**	0.50(0.13-1.59)	0.186
	Relatives	1		1	
Get financial assistance when in need (n=**233**)	Teachers	2.45(0.91-6.61)	0.076	2.19(0.75-6.36)	0.054
	Friends	1.32(0.75-2.33)	0.95	1.25(0.65-2.41)	0.097
	High Blood pressure	1		1	
	Miscarriage	0.36(0.09-1.33)	0.125	0.35(0.09-1.35)	0.128
Health problem that may result from teenage pregnancy (n=**414**)	STI/HIV infection	0.44(0.14-1.42)	0.17	0.50(0.15-1.65)	0.26
	Depression	0.61(0.18-2.04)	0.422	0.67(0.20-2.31)	0.34
	Anemia	1.75(0.33-9.30)	0.511	2.84(0.50-16.09)	0.123

From the output of this analysis, Knowledge about sexual reproductive health, absence of basic needs and peer pressure are factors associated with early pregnancy. (P-value<0,001: Knowledge about contraceptive with COR 0.20 CI 95% [0.11-0.37], (P-value<0,001: absence of basic needs with COR 0.26, CI 95% [0.12- 0.55] and P-value <0,001: eencouragement of friends to engage in sexual activities with COR 0.44 CI 95% [0.29-0.67],

Discussion

The aim of this study was to determine socio-demographic factors, socio-economic factors and to examine sexual and reproductive health factors associated with teenage pregnancy in nine and twelve years basic education school in Gasabo District. The discussions are based on the findings in relation to the research objectives and other related studies conducted in different areas. Result revealed that teenagers with 18-19 years were 10.09 times highly at risk of pregnant comparatively to those of 14-15 years old with P-value<0,001, COR: 10,09, CI 95% [3,5-28,92] Students who studied in S5 were 2.19 more likely of being exposed at pregnant comparatively with those who were in S3 with COR: 2.19, CI 95% [1.21-3.97].This finding was reliable with other researches like the study conducted by Alemayehu et al (2010) on determinant of adolescent fertility in Ethiopia where he found that teenagers who were pregnant were eight times more likely to be fertile than the younger once. To mean that the more age increases, the probability of having sexual intercourse increases with the probability of getting pregnant. The result proven teenagers girls who had parents were less exposed to unplanned pregnancy comparatively to those who achieved primary school. Teenagers from fathers and mothers who achieved vocational trainings and secondary school were 0.35 and 0.10 for fathers and 0.36 and 0.11 for mothers less likely to be exposed at unplanned pregnant comparatively to those who attended primary school. This finding is similarly to the study conducted by Bastien S, et al (2011) (12978-2013-Article-326: where it is revealed that, frequently the communication increased with higher-level education of the parents and mothers were the most initiations of discussions.

The reduced logistic regression model providing only the protector factors associated with teenage pregnancy among the student in nine and twelve years basic education school. The pregnancy level among the teenagers girls were 0.28 and 0.06 times less likely of being pregnant caused by absence of basics needs and home violence respectively among the pregnancy teenagers girls if compare with those who didn't had their parents.The family that get a monthly income above 100,000rwf was 0.15 less likely of having the unplanned pregnant

comparatively with those who had the family who got a monthly income, which was less than 10,000rwf with COR: 0.15, CI 95% [0,05-0,51]. This is similarly with the result output for the study conducted by TRHB: 2013, Yakubu I, Salisu WJ (2018) and Vincent G, Alemu FM (2016) where they argued that the lower family monthly income was also the predictive factor of teenage pregnancy. This finding may similar to the study conducted in South Africa by Sibusiso Mkwananzi (2000) where he wanted to know if poverty may be an explanation for teenage pregnancy in South Africa. In answering the question posed, the preliminary results have shown that: Yes, poverty is a possible explanation for teenage pregnancy in South Africa.

The results also provided that, among the pregnant teenagers, those who didn't have the strong knowledge about the contraceptives methods were 0.28 times less likely to be exposed for unplanned pregnant comparatively to those who had the strong knowledge on the different contraceptive methods. The same issue was revealed in study conducted on determinants of teenage pregnancy in Degua Tembien District, Tigray, northern Ethiopia, a study published by School of Public Health, Mekelle University in 2018 where communication with parents on reproductive health (RH) issues was also a major predictor of teenage pregnancy. It said that teenagers who did not communicate about RH issues with their parents were more exposed to teenage pregnancy than their counter parts. Our study is not so far from this study where only 57.2% of parents of teenagers communicate with their teenagers. Near to ours (39.1%). Teenagers girls who didn't knew any complication caused by early pregnancy were 2,51 times exposed at unplanned pregnancy comparatively to those who know at least two complications of teenage pregnancy.

Conclusion

The factors associated with unplanned pregnancy among teenagers girls in nine and twelve year's basic education school in Gasabo District were identified to be associated whit socio-demographic, socio-economic and sexual and reproductive health factors.

The factors associated with teenage pregnancy in our study were absence of basic needs for teenagers girls, being in the 18–19 year age group, not communicating with parents on reproductive health issues, low level of knowledge about sexual and reproductive health and peers pressures. These factors are multidimensional, as they are related to the individual, family, community, are beyond the control of teenagers.

Today the problem of teenage pregnancy persists in nine and twelve-year basic education schools. That is why special efforts from different stakeholders like local authorities, private, civil societies and parents are required through sensitization and different canal of health promotion.

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Acknowledgments

This work is the result of the collective effort of many people to whom I would like to express my gratitude. My sincere gratitude also goes to Mount Kenya University staffs, especially those of the school of health sciences for the opportunity, support and guidance they provided to me. My special thanks go to my supervisor, Dr Erigene RUTAYISIRE, for his valuable advice, encouragement and constant guidance.
Finally, I would like to gratefully acknowledge the support and encouragement from my family, friends, colleagues who contribute directly or indirectly to the accomplishment of the work.

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