

Correlates of teenage pregnancies in Sub-Saharan African countries

Abstract

Despite efforts to improve adolescent reproductive health issues, teenage pregnancies remain a major public health problem in most countries, especially sub-Saharan Africa (SSA). This paper studied the social and economic factors of teenage pregnancies in four SSA countries, namely, Burundi, Malawi, Namibia, South Africa and Zimbabwe. The study used data extracted from the most recent Demographic and Health Surveys in the selected countries. Descriptive, bivariate and multivariate analyses were used to understand the factors associated with teenage pregnancies. The prevalence of teenage pregnancies ranged from 30.3% in Malawi, 23.1% in Zimbabwe, 19.1% in Namibia, 16.9% in South Africa and 7.9% in Burundi. The results of logistic regression indicate that age, marital status and ever use of family planning are significant factors associated with teenage pregnancies in all the five countries. The study recommends the strengthening of adolescent reproductive health programmes including the implementation of family life education.

Key words: Teenage pregnancies, Social and Economic factors, Sub-Saharan Africa

Introduction

Teenage pregnancy is a global challenge and governments all over the world have made an increasing effort to reduce the incidence of teenage pregnancies [1-3]. According to the World Health Organization, the promotion of family planning is essential for improving maternal health and achieving the sustainable development goals. The low contraceptive rate among sub-Saharan countries is concerning especially for young women. The interest in reducing teenage pregnancies stems from the fact it is associated with negative social, economic and health outcomes [4-6][7-9]. The negative outcomes are also negatively associated with the achievements of Sustainable Development Goals.

Indeed, widespread teenage pregnancies pose social, economic and health challenges not only for the young girls but also for their children and families. Since teenagers are still at an early developmental stage of life, being a mother at this age makes it challenging to take the appropriate economic, social, and psychological responsibilities. In most cases, by the time a young girl becomes pregnant she loses the opportunity to education and thus exposes herself to limited economic prospects. Once they have got a pregnancy, teenage girls are likely to drop out of school [10, 11] hindering their chances to participate in decent labour markets or

other income-earning opportunities [12]. Consequently, teenage mothers get trapped in poverty and often become an economic burden on their family and country.

Some studies have shown that teen pregnancy and poverty are associated and teenage pregnancy leads to a vicious circle of poverty [8, 13]. Teenage pregnancy adversely affects the opportunities of the teen mother by lessening the years of schooling, increasing the chances of unemployment and poorer labour market outcomes for women [8]. A study in Iraq revealed that teenage mothers had lower birth weights as compared to adults, increased risk for preterm delivery, Prolonged labour, postpartum haemorrhage and blood transfusion all were significantly higher in teenage groups [5]. In addition, the risk of still birth, early death and development of acute and long-term health problems is high among babies of teen mothers [14]. Some studies have revealed that unwanted pregnancies among teens lead to unsafe abortions [15].

Several studies have investigated factors responsible for teenage pregnancies in different countries [6, 16-19]. Among the leading factors responsible for high teenage pregnancies are poor socioeconomic factors [6, 19, 20]. As a result of these poor social and economic conditions, teenage women are engaged in sexual relations at an early age [21] and most often the sexual relations are transactional and involve older men in exchange for gifts such as money, clothes, and other goods [6, 9, 11]. As a result of weak power relations, the teenage women are not able to negotiate safe sex practices which eventually result in unintended pregnancies.

For instance, lower socioeconomic status was associated with adolescent pregnancy in Tanzania [22] and Malawi [19]. Similarly, in Nigeria, studies have shown that adolescent girls whose parents were poor tend to participate in unprotected premarital sex which result in adolescent pregnancy and childbearing [11, 17].

Furthermore, available evidence indicates that limited accessibility to sexual and reproductive health information and services, including contraceptives, were associated with teenage pregnancy [8, 19]. A study in South Africa revealed that nearly 41% of the teenagers never used contraceptives, engaged in risky sexual practices and sexuality information was limited [21].

In Tanzania, young girls with incomplete information on reproductive health were more likely to become pregnant before the age of 19 while in Kenya [10] found that lack of access to education opportunities, sex education and information regarding contraceptives predisposed girls to teenage pregnancies.

Given that Sub-Saharan Africa is not uniform the differences in the background characteristics within country and across countries may affect teenage pregnancies differently. Therefore, there is need to conduct a study on teenage pregnancies in a number of countries with diverse backgrounds. Consequently, this paper attempts to improve understanding of the socio-economic and demographic determinants of teenage pregnancies in young women's age at first marriage in four SSA countries, namely, Burundi, Malawi, Namibia, South Africa and Zimbabwe. The objective of the study is to examine socio-economic and demographic factors associated with the teenage pregnancy in Sub-Saharan Africa.

Methods

Data source

The study used data obtained from the most recent Demographic and Health Surveys in each of the selected countries: 2017 Burundi Demographic and Health Survey [23]; 2015 Malawi Demographic and Health Survey [24]; 2013 Namibia Demographic and Health Survey [25], 2016 South African Demographic and Health Survey and 2016 [26] and Zimbabwe Demographic and Health Survey (ZDHS)[25]. The DHSs collected data on basic demographic and health indicators, such as information on fertility levels, marriage, sexual activity, fertility preferences, family planning methods, breastfeeding practices, nutrition, childhood and maternal mortality, maternal and child health, and HIV/AIDS and other sexually transmitted infections (STIs). The surveys were cross-sectional, nationally representative and used a two stage stratified sampling. They were conducted by the national statistical offices in their respective countries and used a standard questionnaire. In all cases Measure DHS provided technical assistance.

For the purposes of this study, the study population comprised of women aged 15-19 years.

The Setting

Burundi

Burundi is small landlocked country in East Africa and is one of the least developed countries in the world with HDI rank of 184 out of 189 countries in 2020. It has a population of nearly 12 million in 2020.

Malawi

Malawi is a small landlocked country in Southern Africa, having an estimated population of 19.1 million, with around 83% living in rural areas in 2020 and 44% aged under 15 years (). The country had a per capita income of US\$ 411.6 in 2019 (World Bank, 2020), and the HDI for 2018 was 0.485.

South Africa

South Africa has an estimated population of 52 million with more than half its population residing in urban areas. It is a middle income country whose HDI was 0.709 in 2020 and is second highest in Sub-Saharan Africa. It was the first country in the region to experience fertility decline

Namibia

Namibia has an estimated population of 2.5 million in 2020 and HID of 0.646 making it the second most economically country in the study. It has a TFR of 3.6 and a life expectancy of 61.7 years.

Zimbabwe

Zimbabwe has a population of about 15 million and was once described as the “bread basket of Africa”. Due to National Statistics Agency Harare, Zimbabwe

	Population	E0	TFR	HDI	
Malawi	19129,952	60,7	4,9	0.483	174
South Africa	59308,69	59,5	2,6	0.709	114
Burundi	11890,784	56,1	6,0	0.433	185
Zimbabwe	14862,924	57,6	4,0	0.571	150
Namibia	2540,905	61,7	3,6	0.646	130

Data Analyses

Three levels of analyses were carried out. The first level involved univariate analyses in which frequency distributions of all variables were examined. This enabled the researcher to examine the characteristics of the sample populations and the prevalence of the teenage pregnancies in the selected countries. The second level involved bivariate analyses in which the dependent and independent variables were cross tabulated to examine the nature of the

relationship. The strength of the relationship was studied using chi-square test. The third level made use of multivariate logistic modelling to determine the factors influencing teenage pregnancies in each of the country. Data analyses was carried out using the Statistical Package for Social Sciences (SPSS) version 25.

Ethical Consideration

Results

Table 1 portrays the distribution of the current age of the study populations. In all countries, with exception of South Africa, more teenagers reside in rural than urban areas. The proportion on teenagers residing in rural areas was 82.5% in Malawi, 77.3% in Burundi, 67.1% in Zimbabwe, 52.7% in Namibia and 48.9% in South Africa. In Malawi, Zimbabwe and Burundi most teenagers reside in male-headed households whereas in South Africa and Namibia the majority of teenagers are in female headed households. The majority of teenagers in Malawi (60%), Zimbabwe (84.6%), Namibia (91.7%) and South Africa (97.8%) are not working whereas in Burundi 55.3% of teenagers are working. It transpires that the majority (88.9%, 93.6%, 96.6%, 98.7% and 98.7% in Burundi, Malawi, Zimbabwe, South Africa and Namibia) of teenagers in the study were knowledgeable about family planning. However, a smaller percentage of teenagers are using contraception: 2.9%, 16.9%, 25.3%, 30.4% and 34.1% in Burundi, Zimbabwe, Malawi, South Africa and Namibia, respectively, were using contraceptives. The majority of the teenagers were not married. The percentage ever married ranged from 0.8% in Burundi, 2.9% in South Africa, 22.7% in Zimbabwe, 26.8% in Malawi and 19.6 in Namibia.

Table 1: Characteristics of the study populations

	Malawi		Zimbabwe		Burundi		South Africa		Namibia	
15	1251	23,8	487	22,1	858	23,5	264	17,5	362	19,0
16	940	17,9	471	21,4	894	24,5	323	21,5	367	19,3
17	967	18,4	435	19,8	788	21,6	331	22,0	346	18,2
18	1073	20,4	384	17,5	697	19,1	279	18,5	404	21,2
19	1033	19,6	421	19,1	417	11,4	308	20,5	426	22,4
	5264	100,0	2198	100,0	3654	100,0	1505	100,0	1905	100,0
A	590	11,2	291	13,2	138	3,8	106	7,0	95	5,0
B	2260	42,9	199	9,0	207	5,7	202	13,4	119	6,2
C	2413	45,8	219	10,0	251	6,9	127	8,4	52	2,7
D			244	11,1	175	4,8	139	9,2	52	2,7
E			108	4,9	188	5,1	272	18,1	201	10,5
F			99	4,5	236	6,5	133	8,8	375	19,7
G			302	13,7	183	5,0	109	7,2	40	2,1
H			287	13,1	243	6,7	193	12,8	246	12,9
I			323	14,7	167	4,6	224	14,9	40	2,1
J			126	5,7	233	6,4			252	13,2
K					181	5,0			154	8,1
L					190	5,2			177	9,3
M					192	5,3			103	5,4
N					188	5,1				
O					230	6,3				
P					199	5,4				
Q					247	6,8				
R					206	5,6				
	5263	100,0	2198	100,0	3654	100,0	1505	100,0	1906	100,0
Urban	919	17,5	724	32,9	831	22,7	769	51,1	901	47,3
Rural	4345	82,5	1475	67,1	2823	77,3	736	48,9	1004	52,7
	5264	100,0	2199	100,0	3654	100,0	1505	100,0	1905	100,0
Male	3533	67,1	1175	53,4	2590	70,9	616	40,9	816	42,8
Female	1729	32,9	1023	46,5	1064	29,1	889	59,1	1090	57,2
	5262	100,0	2198	100,0	3654	100,0	1505	100,0	1906	100,0
Poorest	962	18,3	360	16,4	477	13,1	373	24,8	359	18,8
Poorer	1004	19,1	398	18,1	626	17,1	334	22,2	354	18,6
Middle	1047	19,9	479	21,8	680	18,6	308	20,5	359	18,8
Richer	1017	19,3	458	20,8	763	20,9	306	20,3	384	20,1
Richest	1233	23,4	504	22,9	1108	30,3	184	12,2	450	23,6
	5263	100,0	2199	100,0	3654	100,0	1505	100,0	1906	100,0

Not working	3157	60,0	1861	84,6	1634	44,7	1472	97,8	1738	91,7
Working	2106	40,0	338	15,4	2020	55,3	33	2,2	157	8,3
	5263	100,0	2199	100,0	3654	100,0	1505	100,0	1895	100,0
<30	1197	22,9	398	18,1	172	4,7	157	10,4	208	10,9
30-39	901	17,2	452	20,6	534	14,6	209	13,9	304	16,0
40-49	1378	26,3	535	24,3	1196	32,7	383	25,4	522	27,4
50-59	892	17,0	398	18,1	1105	30,2	341	22,7	355	18,7
60+	866	16,5	415	18,9	647	17,7	398	26,4	514	27,0
	5234	100,0	2198	100,0	3654	100,0	1488	98,9	1903	100,0
No Knowledge	335	6,4	79	3,6	405	11,1	19	1,3	25	1,3
Knows FP	4928	93,6	2119	96,4	3249	88,9	1486	98,7	1880	98,7
	5263	100,0	2199	100,0	3654	100,0	1505	100,0	1906	100,0
No Knowledge	1343	25,5	743	33,8	759	20,8	19	1,3	25	1,3
Knows Ovulatory cycle	3919	74,5	1456	66,2	2895	79,2	1486	98,7	1880	98,7
	5262	100,0	2199	100,0	3654	100,0	1505	100,0	1905	100,0
Never Married	3851	73,2	1698	77,3	3624	99,2	1461	97,1	1793	94,1
Ever Married	1411	26,8	500	22,7	30	0,8	44	2,9	112	5,9
	5262	100,0	2198	100,0	3654	100,0	1505	100,0	1906	100,0
Never Used	3932	74,7	1828	83,1	3549	97,1	1042	69,2	1255	65,9
Ever Used	1330	25,3	371	16,9	105	2,9	463	30,8	650	34,1
	5262	100,0	2199	100,0	3654	100,0	1505	100,0	1905	100,0
None	137	2,6	484	22,0	234	6,4	124	8,2	31	1,6
Primary	3704	70,4	1715	78,0	1608	44,0	1381	91,8	447	23,5
Secondary +	1422	27,0	2199	100,0	1812	49,6	1505	100,0	1428	74,9
	5263	100,0	0	0,0	0	0,0	0	0,0	1906	100,0
No Media	2415	45,9	535	24,3	1562	42,7	140	9,3	131	6,9
Media	2848	54,1	1664	75,7	2092	57,3	1365	90,7	1770	93,1

	5263	100,0	2199	100,0	3654	100,0	1505	100,0	1901	100,0
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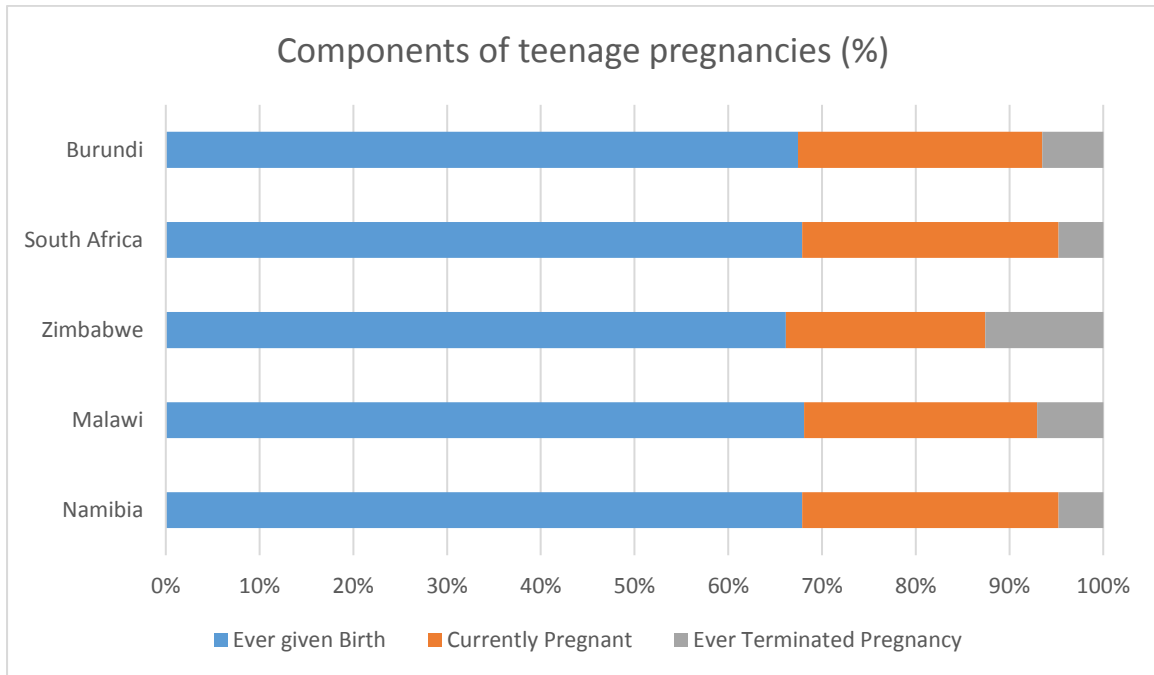
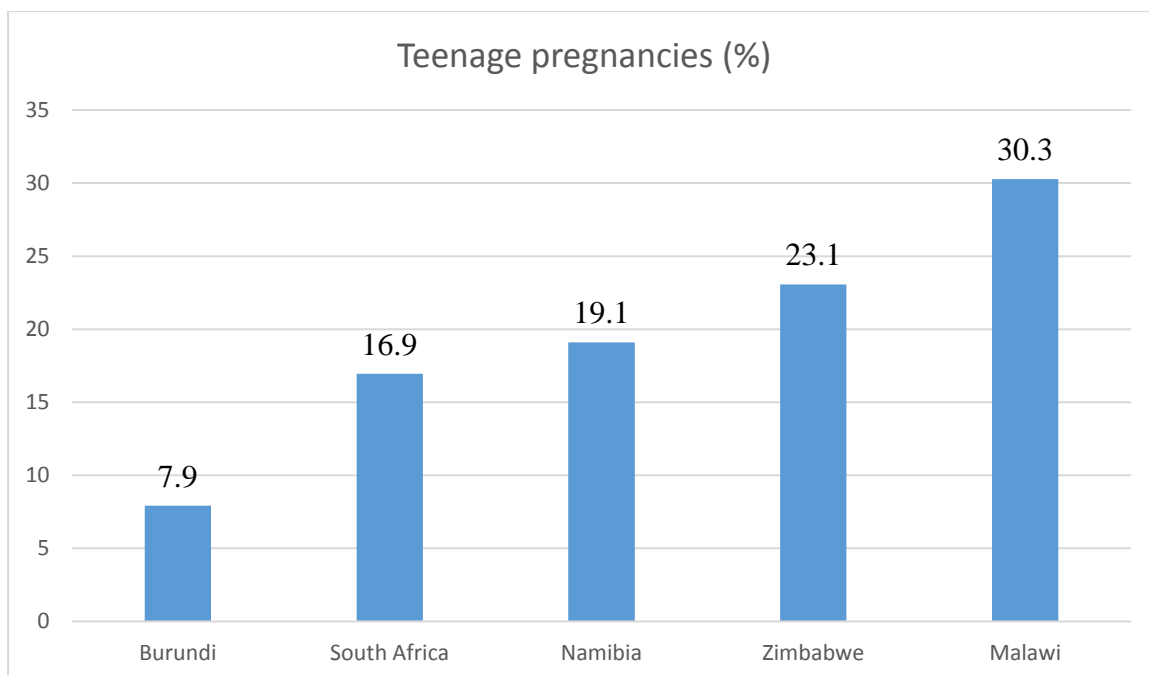


Table 2: Teenage Pregnancies by background variables

	Malawi	Zimbabwe	Burundi	South Africa	Namibia
15	4,8	3,3	0,2	3,0	3,6
16	13,1	10,2	1,7	6,2	10,4
17	28,3	23,9	4,4	16,3	17,9
18	46,6	33,3	11,9	24,4	25,7
19	61,6	50,1	28,6	34,1	34,5
	30,3	23,1	7,9	16,9	19,1
A	35,1	29,9	13,2	8,5	28,4
B	26,7	32,2	6,3	19,8	18,5
C	32,4	27,4	3,5	22,0	19,2
D	30,2	20,9	10,3	12,2	17,3
E		26,9	10,5	19,1	34,8
F		30,3	4,5	21,8	12,8
G		24,8	6,6	14,7	40,0
H		19,2	4,0	19,2	22,8
I		12,4	11,6	12,1	37,5
J		11,9	6,0	16,9	11,1
K		23,0	3,7		9,1
L			12,0		14,7
M			3,0		23,3
N			14,9		19,2
O			6,1		
P			9,5		
Q			11,5		
R			7,6		
S			7,9		
Urban	21,5	11,6	8,7	15,0	17,8
Rural	32,1	28,7	7,7	19,0	20,4
	30,3	23,1	7,9	16,9	19,2
Male	31,4	25,3	8,5	15,9	21,2
Female	27,9	20,4	6,3	17,7	17,6
	30,3	23,0	7,9	16,9	19,2
Poorest	44,9	34,7	12,6	21,2	28,4
Poorer	37,2	28,6	7,3	23,7	25,7
Middle	31,9	28,6	7,4	16,2	17,5
Richer	25,6	21,0	7,2	10,5	17,4
Richest	15,7	6,9	7,0	8,2	9,3
	30,2	23,1	7,9	16,9	19,2

Not working	24,5	21,6	4,4	16,8	17,3
Working	38,9	31,1	10,5	24,2	39,5
	30,3	23,1	7,9	16,9	19,2
<30	70,8	44,5	49,0	31,2	30,8
30-39	16,1	15,5	4,8	15,3	16,8
40-49	17,3	14,4	3,6	11,2	17,4
50-59	21,3	22,9	4,0	13,8	16,9
60+	19,1	21,9	4,6	19,6	18,7
	30,3	23,0	7,9	16,7	19,0
No Knowledge	3,9	1,3	1,2	0,0	0,0
Knows FP	32,1	23,9	8,7	17,2	19,4
	30,3	23,0	7,9	16,9	19,2
No Knowledge	12,2	16,6	3,4	0,0	13,5
Knows Ovulatory cycle	36,4	26,4	9,0	17,2	21,6
	30,3	23,1	7,9	16,9	19,1
Never Married	9,4	5,1	2,8	15,3	15,3
Ever Married	87,2	84,0	87,6	72,7	80,4
	30,3	23,0	7,9	16,9	19,2
Never Used	17,7	10,2	5,7	7,3	9,8
Ever Used	67,3	86,5	48,5	38,7	37,1
	30,3	23,1	7,9	16,9	19,1
None	56,2	38,8	17,6	20,2	45,2
Primary	33,7	18,6	10,3	16,7	26,0
Secondary+	18,8	23,1	4,2	16,9	16,5
	30,3	0,0	0,0	0,0	19,2
No Media	33,4	33,3	9,9	30,0	38,2
Media	27,6	19,7	6,4	15,6	17,7
	30,3	23	7,9	16,9	19,1



Determinants of Teenage Pregnancies

Table 3 indicate the factors that are associated with teenage pregnancies in selected countries in SSA using multivariate logistic regression. The results show resemblance and variability in the factors associated with teenage pregnancies across the selected countries.

In all the five countries age of the respondents is significantly associated with teenage pregnancies. Teenage pregnancies are higher among the older teenagers than younger ones and odds increase with increasing age of the respondents.

Another factors significantly influencing teenage pregnancies in all five countries is marital status. In all countries it was observed that teenage pregnancies were higher among ever married teenagers than never married teenagers.

Never married teenagers have 1.62, 1.59 and 1.55 and 2.08 times in Niger, Mali, DRC and Malawi, respectively) less risk of teenage pregnancy than their ever married teen age counterparts.

For instance, teenagers aged 15 have 0,026, 0,116, 0,172, 0,070 and 0,085 times in Burundi, Namibia, Malawi, South Africa, respectively less risk than those aged 19 years. The odds ratios increase with increasing age, probably indicating the increased risk of expiring pregnancy as one grows older.

Wealth Status is significantly related to teenage pregnancies in four countries (). In these countries it is observed that teenage pregnancies are higher among teenagers from poor households.

Region of residence is also significantly associated with teenage pregnancies in three countries studied. In Malawi the odds of having teenage pregnancy is significantly lower in Central Region than in Southern Region. In South Africa the odds of having teenage pregnancy is significantly higher in Northern Cape, Kwazulu-Natal and Mpumalanga than in Limpopo. In Burundi the odds of having teenage pregnancy is significantly lower in Cibitoke and Rutana than in Rumonge.

All countries with exception of Zimbabwe indicate that the risk of teenage pregnancy is higher in urban than rural areas. However, the relationship between teenage pregnancies and type of residence are significant in Malawi and Namibia only.

Teenage pregnancies are also significantly related to education in Burundi, Malawi and Namibia.

Sex of household head is only significant in Malawi.

Work status is significant in Namibia only.

Table 3:

	Burundi	Namibia	Malawi	South Africa	Zimbabwe
Age					
15	0,026***	0,116***	0,172***	0,070***	0,085***
16	0,168***	0,295***	0,291***	0,123***	0,246***
17	0,407**	0,633*	0,688*	0,399***	0,428**
18	0,712	0,982	0,787	0,595*	0,474**
19 (R)					
Region					
A	0,711	1,725	1,095	1,420	0,978
B	0,635	1,124	0,671***	1,374	0,505
C	0,371	0,925		3,401***	0,907
D	0,540	1,196		1,375	0,632
E	0,343*	1,440		1,955*	2,429
F	0,424	0,518		2,197*	2,606
G	0,488	1,747		1,312	0,823
H	0,321	1,955		2,015*	0,679
I	0,876	1,460			0,994
J	0,901	0,933			
L	0,453	0,634			
M	0,552	1,027			
N	0,452				
O	0,774				
P	0,285*				
Q	0,658				
R	1,506				
Type of Residence					
Urban	1,355	1,774*	1,609**		0,668
Rural (R)					
Sex of HH					
Male	0,478	1,147	0,622***	0,987	1,303
Female (R)					
Wealth Status					
Poorest	0,648	3,632***	1,964**	2,839**	2,651
Poorer	0,601	3,777***	1,487*	3,914***	1,749
Middle	0,614	2,424***	2,012***	2,412*	1,713
Richer	0,768	2,021**	1,653**	1,322	2,090*
Richest (R)					
Work Status					
Not working	0,777	0,335***	1,085	1,193	0,832
Working (R)					
Age of HH					

<30	0,440	0,674	1,003		1,569
30-39	0,520	0,758	0,763		
40-49	0,875	1,202	0,995		
50-59	0,891	0,850	1,327		
60+ (R)					
Knowledge of FP					
No Knowledge		0,000	0,242***	0,000	0,118
Knows FP (R)					
Knowledge of ovulatory cycle					
No Knowledge		0,741	0,423***	0,382***	1,208
Knows Ovulatory cycle (R)					
Marital Status					
Never Married	0,006***		0,029***	0.133***	
Ever Married (R)					
Use of FP					
Never Used	0,127***	0,280***	0,179***	0.188***	0,048***
Ever Used (R)					
Education					
None	3,506***	1,944	3,370***	1,709	1,115
Primary	2,736***	1,674**	2,283***		
Secondary+ (R)					
Media Exposure					
No Media	1,352	2,001*	1,020	1,733*	1,499
Media (R)					
	Burundi	Namibia	Malawi	South Africa	Zimbabwe

Use of family planning is significantly related to teenage pregnancies in all selected countries. Teenage pregnancies are less likely among teenagers who have never used family planning than those who have ever used family planning.

Discussion

It is widely acknowledged that teenage pregnancy and early childbearing negatively impacts the health and socio-economic status of both mother and her child [27]. As such teenage pregnancy is recognised as public health and social problem [27].

The prevalence of teenage pregnancies ranged from 30.3% in Malawi, 23.1% in Zimbabwe, 19.1% in Namibia, 16.9% in South Africa and 7.9% in Burundi. It is interesting to note that Burundi that has the lowest HDI also have the lowest prevalence of teenage pregnancies.

Multivariate analyses identified age, wealth status, marital status, sex and age of household head, knowledge of ovulatory cycle, knowledge and use of family planning and media exposure as important explanatory variables of teen age pregnancies.

Age of teenage women was statistically associated with teenage pregnancy in all the five countries. The study found that an increase in age was associated with increase in the risk of teenage pregnancy. This finding is consistent with the results from other countries [1, 4, 10, 18, 28]. For instance, a study in Uganda found out that teenage pregnancy is higher among older than younger teens [18]. This finding is expected since the percentage of teenagers who start reproductive activities (either sex or childbearing) increases with age because of increased exposure. Moreover, as teens grow older more women will be expected to get married, especially in societies such as those in sub-Saharan Africa where marriage is cherished.

The results indicate that teenage pregnancies were low among teens who were unmarried. This finding on the association between marital status and teenage pregnancies is similar to the findings of other studies [4, 18, 29] and is expected. Married teenagers are less likely to use contraceptives as they are expected to have a child. In some cases, having a child forces teens to get married.

Another factor that was significantly associated with teenage pregnancy in all countries is ever use of contraceptives. This study indicates that teenage pregnancies were lower among teens who have never used contraceptives than those who have ever used contraceptives. This finding is consistent with findings from other studies [30, 31]. It can be argued that teenagers who have ever used contraceptives are the ones who are sexually active and at high risk of becoming pregnant.

exposed to the media were less prone to pregnancy; because of they had information to make educated decisions concerning their sexual and reproductive health matters.

Education is also significantly related to teenage pregnancies in Burundi, Namibia and Malawi. Teenagers with lower education status were more likely to have pregnancy compared to those with higher education. This observation is similar to results from other

studies [1, 29]. Several factors can be responsible for this. First, it can be argued that Education empowers teens with information and knowledge about safe sex and the dangers of unprotected sex. Second, it is also possible that high levels of teenage pregnancies among those with no education could be due to lack of school fees and other essentials, as well as lack of transport to and from school which may results in the teenagers engaging themselves in transactional and unsafe sex [32]. In the same way one.

Region of residence is significantly related to teenage pregnancies in Burundi, Malawi and South Africa. In Burundi the odds of teenage pregnancies were significantly lower in Cibitobe and Rutana than in Rumuonge. In Malawi the odds of teenage pregnancies were significantly lower in Central Region than in Southern Region. In South Africa the odds of teenage pregnancies were significantly higher in Nothern Cape, Kwazulu-Natala and Mpulangang than in Limpopo. Regional differences in teenage pregnancies has also be observed in other studies [2, 18].

These regional differences could be a result of the differences in the local norms and behaviors as well as varying socioeconomic factors related to pregnancy and child bearing in these regions of the country.

The findings of the study indicate that wealth status is significantly related to teenage pregnancies in Namibia, Malawi and South Africa. In these countries, teenagers from poor households were more likely to have pregnancy compared to those from richer households. This result is consistent with findings from studies conducted in Uganda [29], Ethiopia [33], Nigeria [28], South Africa [20], Philippines [34] and South Asia [13]. This might be the case because teenagers from the poor households are more likely to be less educated and knowledgeable of family planning and have limited access to contraceptives. In addition, parents from poor households may be less willing to change the cultural practise that prohibits any discussion of sex related issues with their children. The high rate of teenage pregnancies among teens from poor households may denote the households' inability to satisfy financial needs of the teen girls which lead them to engage into unsafe sex and the subsequent early pregnancy. Studies have indicated that limited financial support that teen girls get from their parents leads the teen girls to engage in risky sex [17, 35]. It is often suggested that teenagers from poor households engaged in sexual relations with older men in exchange for money and other material benefits (cellophone, cars etc) so as to meet their

basic needs or support their family [36]. It is also possible that rich teens have access to contraceptives that they use to prevent pregnancies. In addition, it is possible to argue that the poor teens tend to marry at an early age, while rich teens continue with their education and other career goals.

In the case of Malawi sex of household head was significantly associated with teenage pregnancy. The results indicate that teenage pregnancies were higher in households headed by females than those headed by males. This finding contradicts with what other studies conducted in Nigeria [37]. This might be the case because sex of household head is highly associated with other variables such as decision making and economic status. Given that female headed households are associated with high incidence of poverty, it is possible that teenagers raised in such households engage in unprotected sex or are forced into early marriages for survival.

Lastly, this study indicates that teenage pregnancies were higher teens who were not exposed to the media than those who were exposed to the media. However, the results were significant for Namibia and South Africa. This finding is consistent with findings from other studies [30, 31]. It can be argued that teenagers who were exposed to the media were less prone to pregnancy; because of they had information to make educated decisions concerning their sexual and reproductive health matters. This is the case because the mass media disseminate information about the dangers of early pregnancy and childbearing and use of family planning among other reproductive health messages. In general, media promote positive social attitudes about fertility and reproductive behaviours [38].

Limitation of Study

This study has some limitations. Firstly, the cross-sectional nature of the data limits our capability to draw causal inferences. Secondly, the study relied on self-reported measures. Thirdly, the definition of the term teenage pregnancy varies from one study to another. For instance, in some studies, teenage pregnancy is defined based on whether the respondent is pregnant at the time of the survey [4, 20] whereas other studies combined current pregnancy status with either the number of children ever born [2, 39] or whether the respondent ever terminated pregnancy [40]. There are also studies on the subject that use adolescent fertility rate. The varying definitions make comparisons of the findings difficult.

Conclusions

This study was an endeavour to explore the level and factors that are associated with teenage pregnancy in Liberia. The study found out that teenage pregnancy remains high and is influenced by age, wealth index, age and sex of household head, marital status, knowledge and use of contraceptives, knowledge of ovulatory period and media exposure. Based on the findings of the study, the study recommends strengthening the provision of sexual and reproductive health including access to reliable contraceptive methods and discouraging early marriages. Some of the message that should be given to teenagers should be for them to learn about the changes they go through and their sexual reproductive health rights. Strategies that will ensure promoting household wealth creation should be vigorously explored. Lastly it is recommended that further studies should be carried out to explore the channels through which the background variables operate to influence teenage pregnancy. An improved understanding of the pathways associated with teenage pregnancies is vital in the design of adolescent reproductive health programmes aimed at reducing teenage pregnancies in Liberia in particular and Sub-Saharan Africa in general.

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