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BAHIR DAR UNIVERSITY

College Of Medicine Health Sciences

School of Medicine

Department of Integrated Emergency Surgery and Obstetrics

Proportion of Teen Age Pregnancy And Associated Factors Among pregnant Women Visiting Health Institution In Bibugn District, North west Ethiopia

By :

Adiss Getnet

September, 2021

Bahir Dar, Ethiopia

BAHIR DAR UNIVERSITY

College of medicine and health sciences

School of Medicine

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PROPORTION OF TEEN AGE PREGNANCY AND ASSOCIATED FACTORS AMONG PREGNANT WOMEN VISITING HEALTH INSTITUTION IN BIBUGN DISTRICT, NORT WEST ETHIOPIA

A RESEARCH RESULT SUBMITTED TO BAHIR DAR UNIVERSITY; COLLEGE OF MEDICIN AND HEALTH SCIENCES; DEPARTMENT OF INTEGRATED EMERGENCY SURGERY AND OBSTETRICS FOR THE PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR MASTERS DEGREE OF INTEGRATED EMERGENCY SURGERY AND OBSTETRICS

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SEPTEMBER, 2021

BAHIR DAR, ETHIOPIA

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Bahir Dar University

College of Medicine Health Sciences

School of Medicine

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Approval of Dissertation/thesis for defense

I hereby certify that I have supervised, read, and evaluated this thesis/dissertation titled "proportion of teen age pregnancy and associated factors among pregnant women visiting health institution in Bibugn district " by Adiss Getnet prepared under my guidance. I recommend the thesis/dissertation be submitted for oral defense (mock-viva and viva voce).

Dr. Eyaya Misgan	---------------	------------------
Mr. YihunMulugeta	-----------------	----------------
Advisor's name	Signature	Date

ABSTRACT

Introduction: Teen age pregnancy has poor maternal and neonatal outcome but the proportion and associate factor were not well known. Therefore, the purpose of this investigation was to assess the proportion and associated factors of teen age pregnancy among pregnant women visiting the health institution in Bibugn District, north west Ethiopia.

Method: Institutional based prospective cross-sectional study would be conducted from April 1,2021 to June 30,2021 from all pregnant women visiting health institution in Bibugn district, north west Ethiopia. Three hundred forty six study unit would select by systematic random sampling every other cause (K=2) during time of institutional visit among all pregnant women in antenatal, delivery and other service area. Data would collect by self administered questioner and face to face interview of data collector. The data checked its completeness and validity daily by supervisor and weekly by principal investigator. The collected data would enter to Epidata 3.1 statistical soft ware and transfers to SPSS version 25 for analysis. Data analysis would done by using bi-variable analysis and variable with p- value of less than 0.25 are select for multivariable analysis using binary logistic regression. Variable at 95% confidence interval with p-value of less than 0.05 are significantly associated to teen age pregnancy were selected and expressed interims of odds ratio. Finally the finding of result expressed in the form of percent, mean and frequency by using table. Result finding compare with different variable of the study each other and previous study finding mentioned in the literature.

Result: The proportion of teen age pregnancy among pregnant women visiting health institution in Bibugn district for antenatal follow up during study period was 19.5% (65). The Most common case of teen age pregnancy identified are sexual intercourse before the age of 18 year due to early marriage, or premarital sexual intercourse like Desire to sexual engagement (6.3%), rape (3.6%), peer pressure(2.1) and other (0.9%).

Live in rural residence AOR 5.544 (CI =1.993-15.428), from occupation of participant binge a student AOR 4.898 (CI =1.272-18.865), absence of open discussion on reproductive health in the family AOR 2.479 (CI=1.106-5.558) and non contraception use AOR 4.707 (CI = 1.913-11.582) were significantly associated to teenage pregnancy in the study area.

Discussion and recommendation: Varity of factors affect proportion of teen age pregnancy in the district like residence, head of house hold being father in the family, absence of open discussion on reproductive and sexual health in the family and non contraception usage. Encouraging sexual and reproductive health communication activity, empowering women on decision making activity and scale up awareness of the community on free discussion in the house hold related to sexual and reproductive health.

Table of Contents

PAGE

ABSTRACT ii
LISTTS OF ABBREVIATIONS v
List of Table vii
List of Figure viii
ACKNOWLEDGMENTS ix
1 INTRODUCTION 1
1.1 Back ground 1
1.2 Statement of the problem 2
2 LITERATURE REVIEW 3
2.1 Magnitude of teenage pregnancy 3
2.2 Factor associated to teen age pregnancy 5
CONCEPTUAL FRAME WORK 8
3 OBJECTIVE 9
3.1 General objective 9
3.2 Specific objective 9
4 Materials and Methods 10
4.1 Study area and stud design 10
4.2 Source population 10
4.3 Study population 10
4.4 Inclusion criteria 10
4.5 Exclusion criteria 10
4.6 Sample Size and Sampling Procedure 10
4.7 Sampling technique 12
4.8 Study Variable 12
4.8.1 Dependant variable 12
4.8.2 Independent variable 12
Socio demographic variable: 12
4.9 Operational Definition 13
4.10 Data Collection Instruments and Procedures 13

4.11 Data quality Management 13
4.12 Data processing and analysis 14
4.13 Result dissemination plan 14
4.14 Ethical clearance 14
5 Result 15
6 DISCUSSION 21
7 Conclusion: 22
8 Recommendation 22
9.REFERENCE 23
ANNEX 27

LISTTS OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
BPH	Bibugn Primary Hospital
HC	Health Center
CI	Confidence Interval
EDHS	Ethiopian Demographic Health Survey
FMOH	Federal ministry of health
HIV	Human Immune Virus
IUCD	Intra Uterine Device
MMR	Maternal Mortality Ratio
NR	Non Reactive
PTDS	Post traumatic stress disorder
SDG-3	Sustained Developmental Goal 3
SPSS	Statistical Package for Social Science
STI	Sexually Transmitted Infection
UNFPA	United nation Population fund
UNICEF	United Nations Children's Fund
VCT	Voluntary Counseling and Testing
WHO	World Health Organization
YFS	Youth Friendly Service

List of Table

Table 1: sat calc sample size determination from the second objective citation of second objective (39, 40) 11
Table 2: sample size allocation to the health facility 12
Table 3: sampling technique of the study unit 12
Table 4: Socio-demographic characteristics of pregnant women visiting Bibugn health institution, Northwest Ethiopia, 2021. 15
Table 5: Characteristics of sexual practice of of pregnant women visiting Bibugn health institution,Northwest Ethiopia, 2021. 17
Table 6: outcome of previous and current teen age pregnancy **Error! Bookmark not defined.**
Table 7 : Teenage pregnancy and explanatory variables among all pregnant women visiting health institution in Bibugn district, Northwest Ethiopia, 2021. 19

List of Figure

Figure 1: conceptual frame work 8

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1 INTRODUCTION

1.1 Back ground

World Health Organization (WHO) define adolescent is transition period from chilled hood to adult hood from the age of 10 to 19 years of old. It is explained by significant physiological, psychological and social Changes(1). According to WHO 2016 One in six from the world population, about 1.2billion peoples in the world are adolescent(2).

United Nations Children Fund (UNICEF) defines teen age pregnancy as conception of adolescent between the ages of 13-19years of old. 16 million teenage pregnancies occur worldwide annually and account 11% of live birth. 90% of delivery occur in low and middle income country including Ethiopia (3).

Teenage pregnancy is pregnancy occur after puberty and the pregnancy confirmed by health worker. It is public health problem in developing and developed country(4). Adolescent constitute one fifth of the population in the world. Majority of them live in Asia and African continent. (5).

Around 252 million teen age women from 15 to 19 year live in developing country and adolescent women is one sixth of women in reproductive age population (15-49year) in developing region of the world(6).Majority of teen age pregnancy are un wanted, un planed and unsupported and result unsafe abortion in developing and middle income country(6, 7).

Multiple literatures show that teen age pregnancy result to maternal and neonatal morbidity and mortality. Some of identified Complications of teen age pregnancy are high rate of preterm delivery, eclampsia, puerperial endometritis, emergency cesarean delivery,post partum hemorrhage(PPH), pregnancy induced anemia, urinary tract infection, hypertension, HIV infection, substance abuse, low birth weight(8-10).

Different research In developing counters done indicates that socio-economic factor, low education level, culture and family structure has risk for teen age pregnancy(11). poverty(4, 12), educational level, peer influence, family planning, need of children, time of marriage, forced marriage, age of sexual activity started and residence, mass media exposure, live with partner/ husband, youth friendly service accessibility and inter family communication, has association with teen age pregnancy(11, 13, 14)

1.2 Statement of the problem

According to United Nation Population Fund (UNFPA) finding 20,000 teenager give birth less than 18year every day in developing country. Nineteen percent of teen age women pregnant before the age of 18 year. Every year Two million girl give birth before the age of 15year out of 7.3milon of teen age deliveries before the age of 18year(15).

In developing region of the world 21milion teen age female from 15 to 19 years of old become pregnant. 10milion of them are unintended pregnancy, 5.6 million ends with abortion from this 3.9 million with unsafe abortion. Around 12 million of girl 15 to 19 year of age give birth each year(6, 16).Adolescent parenthood is associated to adverse outcome of mother including mental health problem like depression, substance abuse, post traumatic stress disorder(PTDS)(17).

Early sexual initiation the main risk factor to teenage pregnancy occurrence (4). Child hood marriage, poverty, live in rural area, gender inequality, sexual violence, low educational and health service access and low investment for adolescent health improvement(18).According to 2016 EDHS sixty two percent of teen age women engaged in sexual activity before the age of 20year. The median age of sexual intercourse is 16.6year(19).

In Ethiopia teen age pregnancy has high neonatal morbidity rate following pre term delivery, low birth weight and other neonatal condition(20, 21). Maternal mortality ratio (MMR) in 2016 according to EDHS in Ethiopia is 420/100,000 live birth (22) where as sustainable developmental goal three (SDG-3) set a target to lower MMR below 70/100,000 live birth globally in 2030GC(23).

Studies done in Ethiopia show high proportion of teen age pregnancy and fare from the EDHS finding in different area. In addition to this associated factor are not well studied. Therefore the finding of this study will be contribute to the existing knowledge to understand the proportion and associated factor of teen age pregnancy in the area and will add a new knowledge and understanding to the existing problem.

2 LITERATURE REVIEW

2.1 Magnitude of teenage pregnancy

The magnitude of teen age pregnancy are high in developing country such as 24.1% in India, 22.9% in Nigeria, 11.4% in Indonesia(24-26). Institutional based cross- sectional study done in Nepal from 2007 to 2017 using hospital delivery record books shows 29.06% of deliveries are teen age women(27).

Demographic health survey of Bangladesh indicates that the problem of teen age pregnancy decrease with trends when compared to the previous study from 33% to 30.8% from 1993 to 2014 respectively(28).

Study done in deferent region of 24 African countries including from East, West, Central, North and Southern African with the overall prevalence of teen age pregnancy is 18.8%. The problem is highest in east Africa(21.6) and lowest in north Africa(9.2%) where as 19.3% in sub Saharan Africa(29).

According to African health survey of subsequent study finding the prevalence of teenage pregnancy vary from time to times. This findings are 17.3% in 2002, 23.6% in 2008 and 21.3% in 2011(30). Cross sectional study in south Africa shows 19.2% of study participant experienced teen age pregnancy(31).

Institutional based retrospective cross sectional study done at Niger delta teaching hospital in Nigeria over four year period among 1341 delivered mother shows 6.2% of the women were teen age(32).

Study done in east Africa based on DHS findings indicates that 18% of teen age women are pregnant in Kenya (2014), 29% Zambia (2014) ,29%malawi (2016),25% in Uganda(2016) and 27% in Tanzania among teen age women 15 to 19 years of old(33). Depend on subsequent DHS study finding of Malawi the prevalence of teenage pregnancy is increase from 17.3% to 21.3% in the study period of 2002 to 2011 respectively(34).

The prevalence of teenage chilled bearing is gradually decrease in Ethiopia based on the previous four result findings. It is 16.3% in 2000 and 12.3% in 2016 DHS(35). The 2016

EDHS study shows 13% of women pregnant their 1st chilled in the age of 15-19year in Ethiopia. It varies across regions of country the highest percentage of teenage childbearing was in Afar region (23.4%) and the lowest was in Addis Ababa (3%)(35, 36).

The prevalence of teen age pregnancy in rural part of Ethiopia is 16.6% from analysis of 2252 teenage women live in rural area from 2016 EDHS data. The analysis include different parts of the country and findings are highest in Harari (26%), Afar(25.5%), Dire Dawa(25.45%) and Somali regional state(21.2%) where as lowest in Tigray(12.4%) , SNNP(10.8%)and Ahmara(8.9%)(37).

Multivariate analysis findings from EDHS 2016 data from the age group of 20 to 24 year of age indicates higher experience of teenage pregnancy before the age of 20year. It reviewed 2134 women in the study and 79.6% of the participant faced teenage pregnancy in this study(38).

Facility based quantitative cross sectional study done in Assosa General Hospital in 2014 shows that prevalence of teenage pregnancy is 20.4% among study participant during study period(39).

Community base cross sectional study done in wogedi in 2017 indicates that the problem of teen age pregnancy is 28.6% among 514 study participants of teen age women in the district(40).

Institutional based cross sectional study is done at school level in Ariba minch town in 2014. The magnitude of teenage pregnancy are 7.7% among study participant(41).

.

2.2 Factor associated to teen age pregnancy

Multiple literature findings showed that socio-demographic, economic, cultural,health service related and individual factor are associated factor to teen age pregnancy(11, 42-44).

Research done in 2015 south Sudan at juba indicates that lack of money for school paid, absence of parent care, poverty, peer pressure, non use of contraceptive, need of chilled, forced marriage, low education level and need of dowries had significant association to teen age pregnancy(14).

According to UNFPA finding Ninety percent of adolescent women gave birth in the age of 15 to 19 year following forced marriage. In developing country the problem was high due to forced marriage activity. The problem was one in nine teen age experience forced marriage before the age of 15 year. In Bangladesh(45), Chad and Niger one in three forcedly married before 15th birth date where as one in six in Ethiopia by the age of under 15year (46).

Study done in Malawi shows 76% of study participant of teen age experience unplanned teenage pregnancy following early marriage, low use of contraception, low education level, low economic condition and sexual violence(34).

According to EDHS 2016 21.9% of teen age girls perform sexual intercourse under the age of 18year and had 12 times teenage pregnancy rate than when they engaged after 18year of age. Women live in rural area(15%) three times fertility rate than urban area. Teenage from poor family(24%) four times to the rich house holed(6%) family and 28% of teen age pregnancy are illiterate compare to secondary education and above 3% (36).

Residence(36, 40) , education level(32, 47), income of family/ poverty(14, 48, 49) , peer pressure(50) , religion(51), occupation, age at first sexual intercourse, contraceptive use,(52) substance abuse(53), desire for a child, family communication on reproductive health issue(54), need for dowry, pre-marital early sexual intercourse, limited knowledge of sexual and reproductive health and limited access to appropriate services(55), mass media exposure(45).

School based cross sectional study in Kenya done from 458 participants on the effect of media exposure including student, teacher and administrative staff. Findings show that electronic mass media exposure results early sexual imitation in 63.6% of teachers and 52.3% of students. The problem vary depend on the type of electronic media use and purpose of usage(56).

According to 2015/16 DHS of Malawi finding among study participant of 1308 sexually active women teen age pregnancy rate was 27% in the age of 15 to 19 year. This problem is high in household headed by women(57).

Study done in Africa show that rural residence, early marriage, illiterate adolescent, uneducated parent, absence of sexual and reproductive health communication had significantly associated with teen age pregnancy(58).

Study done in Ghana shows place of residence(high in rural area),economic statues four times higher in low income family than higher income family and un employed population was more risk for teenage pregnancy than adolescent continue their education (59).

Economically empowerment of adolescent women reduces the problem of teen age pregnancy by increasing decision making ability in sexual relation sheep and contraceptive choice (60). Sex education is one of the method of empower adolescent and important to reduce adolescent pregnancy due to awareness of risky sexual behavior and they plan to how to solve the problem(61).

Study done in Ethiopia indicates that early engagement of sexual intercourse, early marriage and/ or live with partner, has nine times higher and divorced or widowed had five times greater than teen age prevalence rate than the abstain. (36)

Emergency condition, social conflict and crisis result teenage pregnancy following separation of adolescent from family and protecting social structure by exposing for rape, sexual exploitation and abuse (62). Forced sex and intimate partner violence increase the risk of teenage pregnancy in the world(63).

Adolescent have inadequate or incomplete information about sexuality, reproductive health and contraception this problem is exacerbated by embarrassment, silence, disapproval of open discussion of sexual and reproductive health by adults including parent and teachers(61).

Peer pressure influence the sexuality of adolescent view by being pregnant or preventing pregnancy and interrupting education or continue until completion. Peer pressure can discourage early sexual intercourse and marriage or encourage early and unprotected sexual activity (14, 64)

Study done in 2017 at Wogidi South Wollo indicates that teen age pregnancy associated with increasing age, non use of contraception ten times than user, teenage from divorced family has ten times risk compared to married parent(40). Whereas investigation in Asosa Ethiopia in 2014 indicates Teenage pregnancy was significantly associated with older age (15-19), being singleton, servant, Oromo ethnic group, and not using family planning method(39).

Teenage pregnancy has effect on economic dependency and depression ,out of education, fall in economic dependency and un employmen (12). It is risk factor to preterm delivery, anemia(65), pre eclampsia , eclampsia (75.0%, 47.8% and 41.1%) among mothers aged ≤15, 16–17, 18–19 year, preterm labor, puerperal infection, obstetric fistula(66).

Case control study in India shows that teen age pregnancy has high incidence of anemia (62.96%vs 43.5%), preterm delivery (51.7% vs 25.8%), low birth weight (65.5% Vs 26.3%) than the control group(26).

Cross sectional study done in rural Kathmandu valley from the age of 15 to19 year from 180 participants show higher maternal and neonatal complication. The identified complications are Abortion(32.2%), preterm delivery(11.11%), and anemia(56.6%)(67).

Study done in Lemlem Karl General Hospital, Tigray, Ethiopia, in 2018 indicates that teen age pregnancy affect maternal and neonatal health by exposing to pregnancy induced HTN(11.3%), cesarean delivery, premature delivery and other neonatal complication.(68)

CONCEPTUAL FRAME WORK

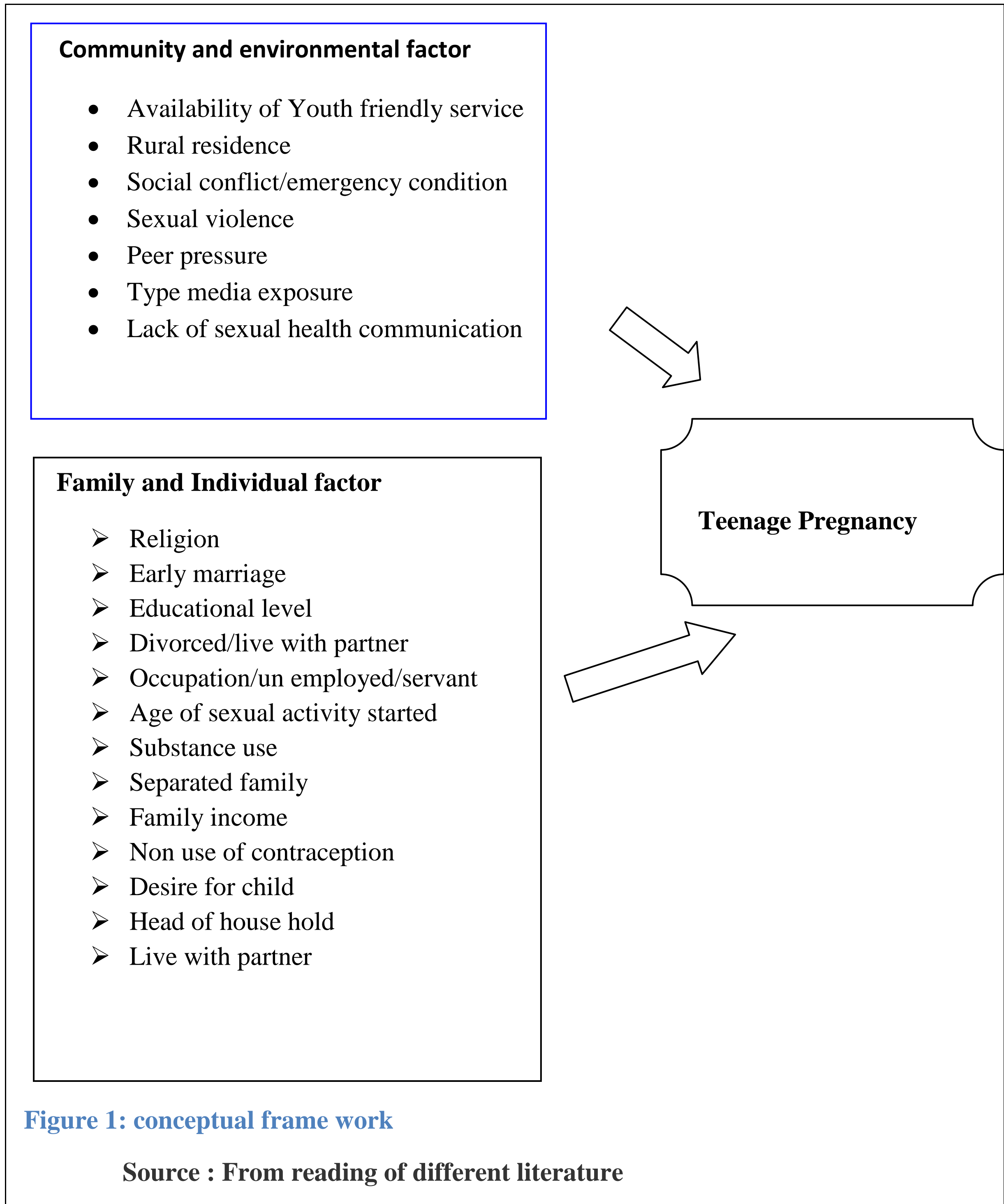

Figure 1: conceptual frame work

Source : From reading of different literature

3 OBJECTIVE

3.1 General objective

To assess the proportion and associated factors of teen age pregnancy among pregnant women who visit health institution in Bibugn district , Amhara region, North West, Ethiopia

3.2 Specific objective

To determine proportion of teen age pregnancy among pregnant women visit health institution in Bibugn district, North West Ethiopia from April 30,2021 to June 30 ,2021

To identify associated factors of teen age pregnancy among pregnant women visiting health institution in Bibugn district, North West Ethiopia from April 30,2021 to June 30,2021.

4 Materials and Methods

4.1 Study area and stud design

Institutional -based cross-sectional study was conducted in Bibugn district from April 1/2021 to June 30/ 2021GC. Bibugn is one of the districts in East Gojjam zone, 81km north west of Debre Markos. According to the national census report of 2007, the projected population of Bibugn for the year 2021GC was 97,737 of whom 24% were adolescents 15-19 years of age. Bibugn has 19 kebeles (4 urban and 15 rural). In the district primary health care unit are implemented as the national standard of first tire health system of Ethiopia by taking health facility to population proportion. The health institution are one district health office, four health center, one district hospital and 18 health post. The nationally sated target of health institution to population at national level one district Hospital for 60,000 to 100,000 population, one health center for 15,000 to 25,000 at district and 40,000 in urban area, health post one for 3000 to 5000 people.

4.2 Source population

All pregnant women visited health institution in Bibugn district.

4.3 Study population

All pregnant women visited health institution in Bibugn district from April 1/2021 to June 30/2021.

4.4 Inclusion criteria

All pregnant women in different unites of the health facility.

4.5 Exclusion criteria

Women referred to Bibugn primary hospital from the four health institution if involved in this study before referral.

4.6 Sample Size and Sampling Procedure

The sample size was calculated using the single population proportion formula with the following assumptions. The proportion of teenage pregnancy among 15-19 years of age females in Wogedi, Ethiopia (28.6%)(40) taken from the previous study with a 5% margin of error and 95% confidence interval. The sample size determined by using first and second objective with 10% non response rate and then take the maximum one and the final sample size was 346. Finally sample size proportionally allocated for the health institution. The study unit would select using

systematic random sampling technique during health facility visit in different service unit.

Sample size for first objective (using proportion)

$$n_o = \frac{(Z_{\alpha/2})^2 . P(1-P)}{d^2}$$

$$n_o = \frac{(1.96)^2 * 0.286(1-0.286)}{(0.05)^2} = 314$$

Total sample size = Calculated sample size with 10% non response rate = 346

Sample size for the second objective(associated factor) by using stat calc:

Table 1: sat calc sample size determination from the second objective citation of second objective (39, 40)

Variable with significant association		Teenage pregnancy		% of un exposed	COR at 95% CI	Sample size
		Yes	No			
Parents marital statues	Marred *	126	302	29.4	2.2	72
	Divorced	7	29			
Age	15-19 *	153	491	23.75	0.11	98
	13-14	4	122			
Marital statues	Married *	111	69	61.66	0.05	24
	Single	46	544			
Ethnicity	Amhara *	49	254	7.79	3.03	190
	Oromo	46	76			
Occupation	student *	52	479	9.79	4.3	68
	Servant	21	45			
Education level	Grade 12+ *	16	29	35.5	0.4	146
	Grade9-12	50	227			

* Symbolically represents the reference case/ unexposed

CI= confidence interval

The sample size determined by using statistical soft ware was shown in the above table and then taken the maximum value 190 then add 10% of non respondent rate. Sample size by objective two was 209. Finally compare the two sample size determined by the

two objectives and taken the maximum sample size. Objective one = 346, objective two = 209. The sample size for this study was 346. Sample size proportionally allocate to the health institution based on the number of cause flow for the previous three month (December to February).

Table 2: sample size allocation to the health facility

Name of health institution	No of pregnant Women visit health institution(December to February)	Sample size allocated		Remark
Bibugn primary hospital	324	324*0.4	130	Sample size/quarterly service= 0.4
Digo Tsion H/C	154	154*0.4	62	
Wabir H/C	148	148*0.4	59	
Woyin wuha H/C	136	136*0.4	54	
Korebita H/C	102	102*0.4	41	
Total	864		346	

4.7 Sampling technique

The sampling technique was systematic random sampling by considering the cumulative report of the previous 3 month on the district was 864 pregnant women visiting the health institution.

Table 3: sampling technique of the study unit

Number of cause in the health institution	Sample size	K value = cause/sample size
864	346	864/346 = 2.49 ~ 2

The participant of the study selected by drawing a number one or two for the initial starting case then adding two for the preceding unit until the desired sample size get.

4.8 Study Variable

4.8.1 Dependant variable

Teen age pregnancy (Yes/No)

4.8.2 Independent variable

Socio demographic variable:

- Age ,
- Religion

- Residence
- Poor family
- Head of the house hold
- Education level
- Marital status
- Live with partner
- Separated family
- Per pressure
- Type of media exposure
- Communication related to sexual and reproductive health
- Social conflict/ emergency condition
- Occupation

Reproductive ,sexual health variable

- Age at 1st intercourse started
- Early marriage
- Forced marriage
- Non use of Contraceptive,
- Substance use
- Desire for chilled
- Sexual coercion

4.9 Operational Definition

Teenage pregnancy: pregnancy occur b/n the age of 13 to 19year of age confirmed by health professional.

Pregnancy: considered when urine HCG is positive

Early marriage: marriage under the age of 18year

4.10 Data Collection Instruments and Procedures

Structured questioner adopted from different literature findings and WHO monitoring checklist in English language and translated to local language to assess the proportion and associated factor of teenage pregnancy in Bibugn district among pregnant women visited the health institution. Pre test was done in Gozamine health center by involving 18 pregnant women whom attaining ANC clinic to check the clarity of questioner to the participant and adjusted based on finding. Two supervisor and five data collector involved in the study after training was given about how to conduct the data collection. Data collection was takes place from April1 to June 30/ 2021GC after explained the aim of the study and information in the questioners for each participant.

4.11 Data quality Management

Data quality was managed by giving training for the supervisor and data collector how to explain the information in the questioner to the participant by their Owen local language to avoid confusion during response. Then Collected Data daily check up was done by supervisor and weekly by principal investigator to solve the

ambiguous data in the questioner and corrected timely. The incomplete questioners containing outcome variable was discard by considering as non response rate.

4.12 Data processing and analysis

Initially data completeness was checked, cleaned and coded manually then data entered to EpiData 3.6vertion statistical soft ware. The cleaned and validated data transferee to SPSS 25 soft ware for data processing and analysis. Data analysis was done with bi-variable analysis and variable had significant association at p-value of less than 0.25 selected for multivariable analysis. The variable with p-value of less than 0.05 in multivariate analysis at 95% confidence interval expressed in the form of odds ratio. Finally the result expressed using descriptive statistics in terms of percent, frequency and mean by using table. The result compared with previous result and the finding among different variables in this study. Model fitness cheeked with hosmer-lemeshow test(>0.05)

4.13 Result dissemination plan

The result of the study will be presented to Bahir DarUniversty college of medicine and health science as part of IEOS thesis; and it will be disseminated to Bhir Dar University college of medicine and health science coordinating office of IESOs, Amhara Regional Health bureau, East Gojjam zone health office, Bibugn woreda health office, the five health institution involved in the study and concerned governmental and nongovernmental organization. An attempt will do to present the findings in different conferences and workshops and try to publication on scientific journal.

4.14 Ethical clearance

Ethical clearance was obtained from the institutional review board of Bahir Dar University college of medicine and health science. Letter of Permeation from Bibugn woreda health office and consent taken from each respondent by explaining the objective of study, its benefit and confidentiality related problem. The client had the right to not participate in the study. Consent taken from the family of the participant under the age of 18year.

5 Result

Socio demographic characteristic of study participant:

A total of 346 pregnant women were included in the study and the response rate was 96.5%. Seven out of teen respondent live in rural area 68.9% (230). The mean age of study participant was 26.46 year. Ninety eight percent (97.9%) of women were orthodox Christian and Ninety two percent (91.9%) of pregnant women were married.

Most of study participant (71.9%) were attained primary education. Six out of teen (59%) from study participant were farmer and one out of teen (13.5%) was student. The mean monthly income of study participant was 3229.46 birr (table 4).

Sexual and reproductive health of study participant:

The mean age of marriage was sixteen year (15.78), the minimum and maximum year of marriage 6 and 26 year respectively. The median age of marriage was 17year. The reason of early marriage mentioned during the study period in the district were Family want wedding ceremony (44.3), cultural influence(8.7%), want to married(6.6%), family want to get money(3.6%) and family want to free from different expense (2.7%).

The proportion of teen age pregnancy among pregnant women visiting health institution in Bibugn district for antenatal follow up during study period was 19.5%(65) with 95% CI (15-24). The Most common cause of teen age pregnancy identified are early marriage, premarital sexual intercourse,Desire to sexual engagement (6.3%), rape (3.6%), peer pressure(2.1) and other (0.9%). Almost half of study participant (53.9%) not engaged on open discussion related to reproductive and sexual health in the family. 95.5% had knowledge on family planning, 88.3% use contraceptive among those majority of them used injectables contraceptive (56.9%) (Table 4)

Table 4: Socio-demographic characteristics of pregnant women visiting Bibugn health institution, Northwest Ethiopia, 2021.

Socio demographic variable		Number	Percent
Age in year (the mean age of study participant 26.46)	<19year	65	19.5
	20-24year	73	21.9
	25-29 year	91	27.2
	30-34 year	42	12.6
	>35 year	63	18.9
Residence	Rural	230	68.9
	Urban	104	31.1
Religion	Orthodox	327	97.9

	Protestant	5	1.5
	Muslim	2	.6
Marital status	Married	307	91.9
	Divorced	12	3.6
	Single	15	4.5
Occupational status	Farmer	197	59.0
	Government employ	57	17.1
	Merchant	35	10.5
	Student	45	13.5
Educational status	Illiterate	94	28.1
	grade1-4	42	12.6
	grade5-8	93	27.8
	secondary education	66	19.8
	>Diploma	39	11.7
Average family monthly income in ETB (Mean family monthly income in ETB = 3229.46)	<2000	160	47.9
	2001-4000	83	24.9
	4001-6000	53	15.9
	>6000	38	11.4

Table 5: Characteristics of sexual practice of of pregnant women visiting Bibugn health institution, Northwest Ethiopia, 2021.

Characteristics		Frequency	Percent
Age of marriage(median age 15.78 years)	<18year	232	69.5
	18yr and above	88	26.3
Age of 1st sexual intercourse started(median age 17years)	<18year	230	68.9
	18year and above	103	30.8
Reason of early marriage	Family went wedding ceremony	148	44.3
	Cultural influence	29	8.7
	want to married	22	6.6
	family went to get money	12	3.6
	family went to free from different expense	9	2.7
Pre marital sex	Yes	44	13.2
	No	284	85.0
Means of your first premarital sex	desire of sexual intercourse	21	6.3
	Rape	12	3.6
	per pressure	7	2.1
	promise or reward	1	.3
	exchange of sex for money	1	.3
	Intimidation	1	.3
The current pregnancy is teen age	Yes	65	19.5
	No	269	80.5
Problem following sexual intercourse	Yes	28	8.4
	No	136	40.7
Type of problem following sexual intercourse	un wanted pregnancy	15	4.5
	Depression ,headache	5	1.5
	HIV/AIDS or STI	4	1.2
	pain following sex	4	1.2
Open discussion on reproductive health	Yes	154	46.1
	No	180	53.9
Knowledge on family planning	Yes	319	95.5
	No	15	4.5

Contraception use	Yes	295	88.3
	No	39	11.7
Type of contraception use	Injectables	190	56.9
	Implant	82	24.6
	Tablet	23	6.9
	emergency contraception	2	.6
	Condom	1	.3
	IUCD	1	.3

Determinant of teen age pregnancy:

Socio demographic variable, sexual and reproductive health variable were checked if they have association with teenage pregnancy. In bivariate analysis , residence, marital status, occupation, live with family, education level, Head of house hold, Age of marriage, Age of sex started, Sex before marriage, Open discussion and Contraception use had association with teenage pregnancy at p-vale <0.25. After controlling the confounding variable multivariate analysis done and the following factors were increasing the proportion of teen age pregnancy: rural residence AOR 5.544 (CI =1.993-15.428), being a student AOR 4.898 (CI =1.272-18.865), absence of open discussion on reproductive health in the family AOR 2.479 (CI=1.106-5.558) and non contraception use AOR 4.707 (CI = 1.913-11.582) were significant at p- value < 0.05 (Table - 6)

Table 6 : Teenage pregnancy and explanatory variables among all pregnant women visiting health institution in Bibugn district, Northwest Ethiopia, 2021.

Variable		Teenage pregnancy		AOR	AOR	P-value
		Yes	No			
Residence	Rural	58	172	3.954(1.81-8.633)	5.544 (1.993-15.428)	.001*
	Urban	8	96	1	1	
Marital statues	Divorced	3	9	1.635(.428-6.244)	.064 (.004-1.033)	.053
	Single	11	4	13.486(4.133-44.001)		
	Married	52	255	1	1	
Occupation	Governmen t employ	5	52	.218(.109-.435)	2.185 (.348-13.716)	.404
	Merchant	4	31	.101 (.034-.298)	2.588 (.575-11.641)	.215
	Student	22	23	.135 (.041-.445)	4.898 (1.272-18.865)	.021*
	Farmer	35	162	1	1	
Live with	Family	20	13	8.528 (3.966-18.339)	8.051 (.858-75.544)	.068
	Husband	46	255		1	
Education level	Illiterate	6	88	1.261 (.243-6.540)	.353 (.055-2.264)	.272
	grade1-4	4	38	1.947 (.336-11.282)	.464 (.061-3.532)	.459
	grade5-8	33	60	10.175 (2.305-44.919)	3.131 (.547-17.921)	.200
	secondary education	21	45	8.633 (1.899-39.246)	4.908 (.863-27.927)	.073
	≥Diploma	2	37	1	1	
Head of house hold	Father	21	20	5.787 (2.903-11.535)	.927(.077-11.171)	.953
	Husband	45	248	1	1	
Age of marriage	<18 year	51	181	.214 (.082-.555)	2.028 (.585-7.032)	.265
	≥18 year	5	83	1	1	
Age of sex start	<18year	56	174	.334 (.163-.685)	.919 (.221-3.822)	.907
	≥18year	10	93	1	1	
Sex before marriage	Yes	14	30	2.238 (1.106-4.530)	.677 (.146- 3.131)	.618
	No	49	235	1	1	

Open discussion	No	52	128	4.062 (2.149-7.681)	2.479 (1.106-5.558)	.027*
	Yes	14	140	1	1	
Contraception use	No	32	31	6.588 (3.598-12.065)	4.707 (1.913-11.582)	.001*
	Yes	33	231	1	1	

*Variable significantly associated at p- value of < 0.05

6 Discussion

The proportion of teenage pregnancy varied across the world due to variation of socio economic, cultural, reproductive and sexual health issue and distribution and accessibility of health institution in the community. In this study proportion and associated factors of teen age pregnancy investigated in Bibugn district, North-west, Ethiopia. The study found the proportion of teen age pregnancy was 19.5% with 95% confidence interval (15-24). Factors associated to increase teen age pregnancy in the district were residence, from occupational statues being a student, absence of open discussion in the family, non use of contraception.

This finding was consistent to the study conducted in Assosa 20.4%(39),south Africa19.2%(39) and sub-Saharan africa19.3%(29). It could be due to similarity in socioeconomic, cultural, individual and family factor.

This finding higher than the national study done in 2016 EDHS 13%(35,36) due to the variation of early marriage activity(69.5%) and early engagement of sexual activity(68.9%) under the age of 18year in Bibugn district where as sex and marriage before 18year were 62% and 58% in the national level respectively. The median age of marriage and first sexual intercourse were 16 and 17 year respectively in the area of study.

The proportion of teen age pregnancy in Bibugn district(19.5%) was lower than the study done in wogidi district (28.6%), North west Ethiopia. This variation could be due to high contraception usage rate (88.3%) in Bibugn district where as lower contraception usage rate (46.3%) in Wogidi district.

The proportion of teen age pregnancy five times higher in rural residence than urban in this study and supported by the national study findings of 2016 EDHS. It could be due to knowledge on reproductive and sexual health of the family, educational level of women, health facility accessibility and family influence on open discussion on reproductive health decision.

Being student five times risk of teenage pregnancy rate than farmer women in the community. It could be due to low use of contraception, the head of house hold in the family being father not allowed for free engagement and decision of sexual and reproductive health issue.

Absence of open discussion in the family about on reproductive and sexual health in the family increase teen age pregnancy rate by two times than the family performed open discussion. This finding supported by the study done (61) due to in adequate and incomplete information on reproductive and sexual health, and contraception method. This problem exacerbated by embracement, silence and disapproval of open discussion by the family and teachers.

7 Conclusion:

- The proportion of teen age pregnancy had higher than the national finding of 2016 EDHS.
- Women live in rural residence, from occupation being a student, absence of open discussion on reproductive and sexual health in the family and non use of contraception method had significant association to teen age pregnancy in Bibugn district.

8 Recommendation

- ✓ Lower the prevalence of teen age pregnancy in the area by improving sexual and reproductive health of adolescent
- ✓ Improve open discussion in the family and community about adolescent sexual and reproductive health activities

Limitation of this study:

- ✓ The study design being institutional based cross sectional study design
- ✓ Recall bias

9.REFERENCE

1. Organization WH. Adolescent pregnancy: World Health Organization; 2004.
2. Adolescents W. health risks and solutions Geneva. Switzerland: World Health Organisation. 2018;22(4):2020.
3. Cook SM, Cameron ST. Social issues of teenage pregnancy. Obstetrics, Gynaecology & Reproductive Medicine. 2015;25(9):243-8.
4. Solomon-Fears C, Ronquillo R. Teenage pregnancy prevention: Statistics and programs: Congressional Research Service; 2015.
5. Mehra S, Daral S, Sharma S. Investing in our adolescents: Assertions of the 11th World Congress on Adolescent Health. Journal of Adolescent Health. 2018;63(1):9-11.
6. Darroch JE, Woog V, Bankole A, Ashford LS, Points K. Costs and benefits of meeting the contraceptive needs of adolescents. Guttmacher Institute. 2016.
7. Organization WH. Adolescent pregnancy: adolescence is a time of opportunity during which a range of actions can be taken to set the stage for healthy adulthood: factsheet. World Health Organization, 2014.
8. Kovavisarach E, Chairaj S, Tosang K, Asavapiriyanont S, Chotigeat U. Outcome of teenage pregnancy in Rajavithi Hospital. Medical journal of the Medical Association of Thailand. 2010;93(1):1.
9. Leppälahti S, Gissler M, Mentula M, Heikinheimo O. Is teenage pregnancy an obstetric risk in a welfare society? A population-based study in Finland, from 2006 to 2011. BMJ open. 2013;3(8).
10. Ganchimeg T, Mori R, Ota E, Koyanagi A, Gilmour S, Shibuya K, et al. Maternal and perinatal outcomes among nulliparous adolescents in low-and middle-income countries: a multi-country study. BJOG: An International Journal of Obstetrics & Gynaecology. 2013;120(13):1622-30.
11. Acharya DR, Bhattarai R, Poobalan A, Teijlingen vE, Chapman G. Factors associated with teenage pregnancy in South Asia. 2014.
12. Wong SP, Twynstra J, Gilliland JA, Cook JL, Seabrook JA. Risk factors and birth outcomes associated with teenage pregnancy: A Canadian sample. Journal of pediatric and adolescent gynecology. 2020;33(2):153-9.
13. Byonanebye J, Brazauskas R, Tumwesigye N, Young S, May T, Cassidy L. Geographic variation and risk factors for teenage pregnancy in Uganda. African Health Sciences. 2020;20(4):1898-907.
14. Vincent G, Alemu FM. Factors contributing to, and effects of, teenage pregnancy in Juba. South Sudan Medical Journal. 2016;9(2):28-31.
15. Williamson NE. Motherhood in childhood: facing the challenge of adolescent pregnancy: United Nations Population Fund; 2013.
16. Plesons M, Hadley A, Maddaleno M, Oljira L, Tibebu S, Akwara E, et al. Lessons learned from national government-led efforts to reduce adolescent pregnancy in Chile, England and Ethiopia. Early Childhood Matters. 2019:50.
17. Hodgkinson S, Beers L, Southammakosane C, Lewin A. Addressing the mental health needs of pregnant and parenting adolescents. Pediatrics. 2014;133(1):114-22.
18. Termpittayapaisith A, Peek C. Motherhood in childhood: Facing the challenge of adolescent pregnancy. United Nations Population Fund Thailand Country Office & Office of the National Economic and Social Development Board. 2013.

19. CSA I. Central Statistical Agency (CSA)[Ethiopia] and ICF. Ethiopia Demographic and Health Survey 2016. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF; 2016. 2017.
20. Kefale B, Yalew M, Damtie Y, Adane B. A Multilevel Analysis of Factors Associated with Teenage Pregnancy in Ethiopia. International Journal of Women's Health. 2020;12:785.
21. Kassa GM, Arowojolu A, Odukogbe A, Yalew AW. Adverse neonatal outcomes of adolescent pregnancy in Northwest Ethiopia. PloS one. 2019;14(6):e0218259.
22. Tsegaye B, Ayalew M. Prevalence and factors associated with antenatal care utilization in Ethiopia: an evidence from demographic health survey 2016. BMC Pregnancy and Childbirth. 2020;20(1):1-9.
23. Secretariat C. Ensure Healthy Lives and Promote Well-being for All, at All Ages (SDG 3). 2017.
24. Indarti J, Al Fattah AN, Dewi Z, Hasani RDK, Mahdi FAN, Surya R. Teenage Pregnancy: Obstetric and Perinatal Outcome in a Tertiary Centre in Indonesia. Obstetrics and Gynecology International. 2020;2020.
25. Amoran OE. A comparative analysis of predictors of teenage pregnancy and its prevention in a rural town in Western Nigeria. International journal for equity in health2012. p. 37.
26. Banerjee B, Pandey G, Dutt D, Sengupta B, Mondal M, Deb S. Teenage pregnancy: a socially inflicted health hazard. Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine. 2009;34(3):227.
27. Maharjan M, Thapa N, Maharjan N, Rai P, Pun P, Petrini MA, et al. Prevalence of Teenage Pregnancy in A Community Hospital of Rural Nepal: A Cross-sectional Study. Age (years). 2019;17(271):13.2.
28. Islam MM, Islam MK, Hasan MS, Hossain MB. Adolescent motherhood in Bangladesh: Trends and determinants. PloS one. 2017;12(11):e0188294.
29. Kassa GM, Arowojolu A, Odukogbe A, Yalew AW. Prevalence and determinants of adolescent pregnancy in Africa: a systematic review and meta-analysis. Reproductive health. 2018;15(1):195.
30. Jonas K, Crutzen R, van den Borne B, Sewpaul R, Reddy P. Teenage pregnancy rates and associations with other health risk behaviours: a three-wave cross-sectional study among South African school-going adolescents. Reproductive health. 2016;13(1):1-14.
31. Mchunu G, Peltzer K, Tutshana B, Seutlwadi L. Adolescent pregnancy and associated factors in South African youth. African health sciences. 2012;12(4):426-34.
32. Ayuba II, Gani O. Outcome of teenage pregnancy in the Niger Delta of Nigeria. Ethiopian journal of health sciences. 2012;22(1):45-50.
33. Wado YD, Sully EA, Mumah JN. Pregnancy and early motherhood among adolescents in five East African countries: a multi-level analysis of risk and protective factors. BMC pregnancy and childbirth. 2019;19(1):1-11.
34. Kaphagawani NC, Kalipeni E. Sociocultural factors contributing to teenage pregnancy in Zomba district, Malawi. Global public health. 2017;12(6):694-710.
35. Kassa GM, Arowojolu AO, Odukogbe A-TA, Yalew AW. Trends and determinants of teenage childbearing in Ethiopia: evidence from the 2000 to 2016 demographic and health surveys. Italian journal of pediatrics. 2019;45(1):1-13.
36. Kassa GM, Arowojolu AO, Odukogbe A-TA, Yalew AW. Trends and determinants of teenage childbearing in Ethiopia: evidence from the 2000 to 2016 demographic and health surveys. Italian Journal of Pediatrics. 2019;45(1):153.

37. Kawo KN, Zeleke AT, Dessie DB. Determinants of Teenage Pregnancy in Rural Ethiopia. J Health, Med and Nursing. 2019;68:8-16.
38. Birhanu BE, Kebede DL, Kahsay AB, Belachew AB. Predictors of teenage pregnancy in Ethiopia: a multilevel analysis. BMC public health. 2019;19(1):1-10.
39. Beyene A, Muhiye A, Getachew Y, Hiruye A, Mariam DH, Derbew M, et al. Assessment of the magnitude of teenage pregnancy and its associated factors among teenage females visiting Assosa General Hospital. Ethiopian Med J. 2015:25-37.
40. Ayanaw Habitu Y, Yalew A, Azale Bisetegn T. Prevalence and factors associated with teenage pregnancy, northeast Ethiopia, 2017: A cross-sectional study. Journal of pregnancy. 2018;2018.
41. Mathewos S, Mekuria A. Teenage pregnancy and its associated factors among school adolescents of Arba Minch town, southern Ethiopia. Ethiopian journal of health sciences. 2018;28(3):287-98.
42. Krugu JK, Mevissen F, Münkel M, Ruiter R. Beyond love: a qualitative analysis of factors associated with teenage pregnancy among young women with pregnancy experience in Bolgatanga, Ghana. Culture, health & sexuality. 2017;19(3):293-307.
43. Mkwananzi S, Odimegwu C. Factors associated with teen pregnancy in sub-Saharan Africa: a multi-country cross-sectional study. African Journal of Reproductive Health. 2016;20(3):94-107.
44. Cook SM, Cameron ST. Social issues of teenage pregnancy. Obstetrics, Gynaecology & Reproductive Medicine. 2017;27(11):327-32.
45. Sayem AM, Nury ATM. Factors associated with teenage marital pregnancy among Bangladeshi women. Reproductive health. 2011;8(1):1-6.
46. Activities UNFfP. Girlhood, Not Motherhood. Preventing Adolescent Pregnancy: UNFPA; 2015.
47. Were M. Determinants of teenage pregnancies: The case of Busia District in Kenya. Economics & Human Biology. 2007;5(2):322-39.
48. Smith C, Strohschein L, Crosnoe R. Family histories and teen pregnancy in the United States and Canada. Journal of Marriage and Family. 2018;80(5):1244-58.
49. Christofides NJ, Jewkes RK, Dunkle KL, McCarty F, Shai NJ, Nduna M, et al. Risk factors for unplanned and unwanted teenage pregnancies occurring over two years of follow-up among a cohort of young South African women. Global health action. 2014;7(1):23719.
50. Manzi F, Ogwang J, Akankwatsa A, Wokali OC, Obba F, Bumba A, et al. Factors associated with teenage pregnancy and its effects in Kibuku Town Council, Kibuku District, Eastern Uganda: A cross sectional study. 2018.
51. Amoran OE. A comparative analysis of predictors of teenage pregnancy and its prevention in a rural town in Western Nigeria. International journal for equity in health. 2012;11(1):37.
52. Jonas K, Crutzen R, van den Borne B, Sewpaul R, Reddy P. Teenage pregnancy rates and associations with other health risk behaviours: a three-wave cross-sectional study among South African school-going adolescents. Reproductive health. 2016;13(1):50.
53. Kassa GM, Abajobir AA. A meta-analytic review of gender disparity in the magnitude of substance use among young people in Ethiopia. Ethiopian Medical Journal. 2019;57(4).
54. Krugu JK, Mevissen F, Prinsen A, Ruiter RA. Who's that girl? A qualitative analysis of adolescent girls' views on factors associated with teenage pregnancies in Bolgatanga, Ghana. Reproductive health. 2016;13(1):1-12.
55. Sychareun V, Vongxay V, Houaboun S, Thammavongsa V, Phummavongsa P, Chaleunvong K, et al. Determinants of adolescent pregnancy and access to reproductive and

sexual health services for married and unmarried adolescents in rural Lao PDR: a qualitative study. BMC pregnancy and childbirth. 2018;18(1):219.
56. Kimemia KA, Mugambi MM. Social media and teenage pregnancy among students in secondary schools in Imenti North Sub-County, Meru, County Kenya. International Journal of Scientific Research and Management. 2016;4(09):4586-606.
57. Baruwa OJ, Mkwananzi S, Amoateng AY, Naidoo N. Teenage pregnancy among unmarried teenagers in Malawi: Does sex of the household head matter? African Journal of Reproductive Health. 2020;24(4).
58. Kassa GM, Arowojolu A, Odukogbe A, Yalew AW. Prevalence and determinants of adolescent pregnancy in Africa: a systematic review and meta-analysis. Reproductive health. 2018;15(1):1-17.
59. Asare BY-A, Baafi D, Dwumfour-Asare B, Adam A-R. Factors associated with adolescent pregnancy in the Sunyani municipality of Ghana. International Journal of Africa Nursing Sciences. 2019;10:87-91.
60. Bandiera O, Buehren N, Burgess R, Goldstein M, Gulesci S, Rasul I, et al. Empowering adolescent girls: evidence from a randomized control trial in Uganda: World Bank; 2012.
61. Presler-Marshall E, Jones N. Empowering girls to prevent early pregnancy. Oversees Development Institute. 2012.
62. Jones N, Cooper J, Presler-Marshall E, Walker D. The fallout of rape as a weapon of war. Overseas Development Institute [Online] Available. 2014.
63. Organization WH. Violence prevention: the evidence. 2010.
64. Ochen AM, Chi PC, Lawoko S. Predictors of teenage pregnancy among girls aged 13–19 years in Uganda: a community based case-control study. BMC pregnancy and childbirth. 2019;19(1):1-14.
65. Paranjothy S, Broughton H, Adappa R, Fone D. Teenage pregnancy: who suffers? Archives of disease in childhood. 2009;94(3):239-45.
66. Ganchimeg T, Ota E, Morisaki N, Laopaiboon M, Lumbiganon P, Zhang J, et al. Pregnancy and childbirth outcomes among adolescent mothers: a W orld H ealth O rganization multicountry study. BJOG: An International Journal of Obstetrics & Gynaecology. 2014;121:40-8.
67. Kafle P, Pakuryal K, Regmi R, Luintel S. Health problems and social consequences in teenage pregnancy in rural Kathmandu Valley. Nepal Med Coll J. 2010;12(1):42-4.
68. Abebe AM, Fitie GW, Jember DA, Reda MM, Wake GE. Teenage pregnancy and its adverse obstetric and perinatal outcomes at Lemlem Karl Hospital, Tigray, Ethiopia, 2018. BioMed research international. 2020;2020.

ANNEX

Declaration

This is to certify that the thesis entitled "poportion and associated factor of teen age pregnancy among pregnant women visiting health institution in Bibugn district ", submitted in partial fulfillment of the requirements for the Master of IESO in ----of Department of emergency surgery and obstetrics, Bahir Dar University, is a record of original work carried out by me and has never been submitted to this or any other institution to get any other degree or certificates. The assistance and help I received during the course of this investigation have been duly acknowledge

Adiss Getnet	18/02/2021	D/Markos
Name of the candidate	Date	Place

BAHIR DAR UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCE

This questioner developed to assess the proportion and associated factor of teenage pregnancy among pregnant women visiting Bibugn woreda health facility, Amhara region , North West Ethiopia 2021.

Greeting! My name is----------------------- I am a data collector temporarily working on behalf of principal investigator on the thesis with the objective assessment of proportion and associated factor of teenage pregnancy among pregnant women visiting health institution in Bibugn district.

Information sheet:

Title of research project: to assess the proportion and associated factor of teenage pregnancy among pregnant women visiting Bibugn woreda health facility, Amhara region , North West Ethiopia.

Introduction: this information sheet prepared for study participant those pregnant women visiting Bibugn woreda health institution in study period to provide clear information about the project. Before you involve in the study it is important to understand the aim and reason of study and what contribution expect from you. So, take time to decide and read the following statement to involve the study or not. Thank you for your reading.

Purpose of research: The main aim of this research is to assessing the proportion and associated factor of teenage pregnancy among pregnant women visiting Bibugn woreda health facility, Amhara region , North West Ethiopia,2021.

Inclusion: you are chosen as one of 346 study participant randomly

Voluntary participation: it is your decision whether involve in the study or not. You can with draw after starting the survey or not involve without giving any reason any time and not involve penalty or loss of benefit.

Procedure: To achieve the aim of project the information will be taken self administered questioner or face to face interview by data collector

Possible disadvantage and risk: there is no any harm to study participant following proposed research project.

Benefits: there is no direct benefit to you; but, I hope that the result of the study will provide valuable information on prevalence and associated factor of teen age pregnancy for the community and decision makers for possible intervention.

Complain handling/ whom to contact: if you have any question about this study, you should contact the principal investigator Addis Getnet (0921336493)

Confidentiality: all the information collected in the course of research will be kept confidential. The study not includes detail that identify to you such as your name. Only the data collecting team and principal investigator directly access the survey. If the result of current study published or present in scientific meeting, name and other information that might identify will not be used.

Finding: result of research will be presented and submitted to Bahir Dar University. Copy of result will be given to Amhara regional health bureau, East Gojjam Zone Health Office, Bibugn woreda health office and the health institution study done for possible health improvement project planning in their respected levels. Presentation of the result at local and professional meeting then if possible publication of the result in national or international journals.

Consent form

I have been informed the purpose of this research project and participation in this study entirely voluntarily. I have been told that my answer to the questioners will not be given any one else, no need to write your names on these survey papers and no report of this study ever identify me in anywhere. I understand involve in the study, with draw or refuse to involve in the survey in my voluntariness and no effect/risk on me during the process that I decided that. I understand that Adiss Getnet Alemu is the contact person if I have question about the study or my rights as participant.

These study questions will be filled if you agree. It involve various personal and sexual health issue of individual. So, it is your full right to refuse or participate in this study. If you do not want participate, it is your full right. Moreover, I assure you that your response is completely confidential and non of your response not reported to anybody.

However , we believe that your participation and genuine response in this study will give value for the succsuss of this study and improvement of adolescent reproductive and sexual health.

So, Would you like to participate in the study?

Yes ------------ No --------------- signature-----

Thank you!! Please take a few minutes to fill the survey request.

Name and signature of data collector --------------------------- Date--------------------

Address of principal investigator:

Addis Getnet (department of emergency surgery and obstetrics)

Phone 0921336493

E-mail: adissget@gmail.com

Questioner

	Socio Demographic factor
	Age -------------------
	Residence A. Rural B. Urban
	Religion A. Orthodox B. Protestant C. Muslim D. Catholic E. other
	Marital states A. Married B. Divorced C. Widowed D. Singleton
	Age of marriage -----
	If the age of marriage before 18year what is the reason? A. Forced marriage (Family went to see weeding sermon before they died….. B. I wanted to married C. Family need to dowry D. Family went to free from educational and other expenditure E. Due to fear of abuse by community(like komoker in amharic) F. Other--------------------------------------
	Occupation of respondent A. Farmer B. Gov. employ C. Self employee D. Merchant E. Student F. Other

	Whom you Live with ? A. Alone B. Husband C. Parent
	Educational level of the respondant A. Illiterate B. Grade 1-4 C. Grade 5-8 D. Grade 9-12 E. Above grade 12
	Average Monthly income of family(birr)----------------
	Head of house hold A. Husband B. Father C. Mother D. Older brother E.------------
	Reproductive health:
	Is the current pregnancy is under the age of 20 year? A.Yes B. No
	Have you any pregnancy under the age of 20 year previously? A . Yes B. No
	Reason of under 20 year of pregnancy? A. Early marriage B. Sexual assault/rape C. Substance use D. Want to pregnant E. Non use of contraception
	Age at 1st sex start -----------------
	Do you perform sexual intercourse before marriage? A. Yes B. No
	If yes for the above question what is the means of pre marital sex? A. Desire to have sex B. Physical force/rape C. Deception/promise/reward D. Exchange of sex for money/gifts/love E. Substances use F. Threat of non Physical punishment/verbal pressure G . Pear pressure
	Type of substance use A. Alcohol B. Chat C. Hashes

	Is there any problem happened following sexual intercourse? A. Yes B. No
	If the answer is yes for question no 8 what type of problem happened? A. Depression/ headach B. HIV/AIDS or STI C. Physical trauma D. Un planed/ un wanted pregnancy E. Pain following intercourse
	Do you discuses freely about sexual and reproductive health in the family? A. Yes B. No
	Which type of media you use to get information related to maternal health? A. Radio b. Television C. social media(face book, Google---) D. News paper
	Do any problem following your 1st sexual intercourse? A.Yes B. No
	If yes for the above question what Problem occur after your first sex? A. Psychological trauma B. AIDS and other STIs C. Physical trauma D. Unintended pregnancy E. Pain during / after sexual intercourse
	Do you know family planning? A. Yes B. No
	Which Type of family planning you know? Select more than one if you know A. Pills B. Depo-Provera injection C. Male Condom Female Condom D. Implants E. IUCD F. Emergency Contraception (Post pill) G. Traditional Method
	Where contraception methods can be getting? You can select more than one A. Health post B. Health Center C. Hospital D. private Health Facility
	Do you ever use contraceptive method? A. Yes B. No

	What Type of contraceptive method ever used? Can select more than one method A. Pills B. Depo-Provera injection C. Male Condom Female Condom D. Implants E. IUCD F. Emergency Contraception (Post pill) G. Traditional Methods
	What is the Reason of not used FP? A. Never had sexual intercourse B. Do not have knowledge C. Violence/Forced sex D. Family influence E. Do not have accesses F. Want to get pregnant
	What is the Outcome of 1st pregnancy? A. Abortion B. Still birth C. Live birth D. continued the pregnancy course E. Pre term F. Low birth weight
	Place of termination/delivery of 1st pregnancy A. Health institution B. Traditional healers C. Home
	What Problem faced after termination/delivery? A. Psychological trauma B. Vaginal bleeding (anemia) C. Infection (localized/systemic) D. Obstructed labor (difficult laboring) E. Pregnancy related hypertension
	Is the respondent know HIV serostatus? A. Yes B. No
	HIV serostatus of respondent A. A. Non –reactive/NR B. Reactive

የባህር ዳር ዩኒቨርስቲ ህክምናና ጤና ሳይንስ ኮሌጅ

ለድንገተኛ ቀዶ ህክምናና የማህጸንና ጽንስ ህክምና ት/ት ክፍል የመመረቂያ የምርምር ጽሁፍ የግንዛቤ ማስጨበጫ ቅጽ

ሰላምታ ---------- እኔ-------- እባላለሁ ይህን መረጃ ለመሰብሰብ በጊዜአዊነት እሰራለሁ፡፡ ይህ ቃለ መጠይቅ የተዘጋጀው በወጣትነት ደረጃ (ከ13-19 አመት) የሚከሰትን የእርግዝና መጠን እና ገፊ ምክንያቶችን በቢቡኝ ወረዳ ባሉ የጤና ተቋማት ለመገልገል ከመጡ ነፍሰጡር እናቶች መካከል ምን እንደሚመስል ለማጥናት በ2013ዓ/ም የተዘጋጀ ነው፡፡ ስለሆነም እርስዎ በጥናቱ ከሚሳተፉ 346 ግለሰቦች መካከል በአጋጣሚ ተመርጠዋል፡፡ በጥናቱ በመሳተፍዎ ምክንያት የሚደርስብዎ ምንም አይነት ጉዳት የለም፡፡ በዚህ ጥናት ላይ የመሳተፍ እና ያለመሳተፍ ሙሉ መብቱ የእርስዎ ነው፡፡ በጥናቱ ያለመሳተፍ ከተሳተፉም በማንኛውም ሰዓት ምንም ምክንያት ማቅረብ ሳያስፈልግ ከጥናቱ መውጣት ይችላሉ፡፡ በጥናቱ በመሳተፍዎ የሚያገኙት ምንም አይነት ቀጥተኛ ጥቅም የለም ሊጠቀሙ የሚችሉት እርስዎ በሰጡት መረጃ መሰረት የወጣቶች ጤና ሲሻሻል ከሚገኘው እርካታ እና አገልግሎት ነው፡፡ ይህ መረጃ ከዚህ ጥናት ውጭ ለምንም አገልገሎት አይውልም፡፡ መረጃ በሚሰጡበት ወቅት የእርስወን ማንነት የሚገልጽ ነገር አይሞላም ስምዎንም መግለጽ አይጠበቅብዎትም፡፡

በጥናቱ ለመሳተፍ የሚሞላ የስምምነት ቅጽ

የጥናቱ አላማና አስፈላጊነት ገለጻ ተደርጎልኝ በጥናቱ ለመሳተፍ ሙሉው ወሳኔ የተሳታፊው መሆኑን ተረድቻለሁ፡፡ በጥናቱ ላይ የምሰጠው መረጃ ለሌላ አካል ተላልፎ እንደማይሰጥ እና ስሜ እንደማይገለጽ አስረድተውኛል፡፡ በጥናቱ ያለመሳተፍ ከተሳተፍኩም ባልተመቸኝ ዎቅት በማንኛውም ሰዓት ጥናቱን አቋርጬ የመውጣት መብቴ የተጠበቀ መሆኑን እና በጥናቱ ባለመሳተፌ ምንም የሚደርስብኝ ነገር እንደሌለ በግልጽ ተረድቻለሁ፡፡ በጥናቱ በመሳተፌ መንም ጉዳት እንደማይደርስብኝ እና አስፈላጊ መረጃ ለመጠየቅ በፈለኩበት ዎቅት አቶ አዲስ ጌትነትን ማግኘት እንዳለብኝ አውቃለሁ፡፡

ይህ መጠይቅ የሚሞላው እርስዎ በጥናቱ ለመሳተፍ ፈቃደኛ ከሆኑ እና ካልተመቸዎት በማንኛውም ሰኣት የመውጣት ወይም ያለመሳተፍ መብት ያለዎት መሆኑን አውቀው ነው፡፡ ስለሆነም እርስዎ የሚሰጡት መረጃ ከቅንነት በመነጨ እና በፍተኛ የሃላፊነት ስሜተ መሆን አለበት ምክንቱም እርስዎ የሚሰጡት መረጃ የወጣቶችን ጤና ለማሻሻል የሚያበረክተው ሚና እጅግ ከፍተኛ ነው፡፡

ስለዚህ እርስዎ በጥናቱ ለመሳተፍ ፈቃደኛ ነዎት? አዎ -------አይደለሁም---------

መረጃውን የሚሰበስበው ባለሙያ ፊርማ----------- ቀን--------------

ጥናቱን የሚሰራው ባለሙያ አድራሻ

አዲስ ጌትነት (የተቀንጀ የድንገተኛ ቀዶ ህክምናና የማህጸን እና ጽንስ ህክምና ት/ት ክፍል)

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ኢሜል adissget@gmil.com

ከ20 አመት በታች የሚከሰትን እርግዝናና ገፊ ምክንያቱን ለማጥናት የተዘጋጀ ቃለ መጠይቅ

መጠይቁን ያረጋገጠው ሱፐርቫይዘር ስም እና ፊርማ -------------------------------
መጠይቁን ያረጋገጠው የጥናቱ ባለቤት ፊርማ --------------------------------------

100	***የማህበራዊ ሁኔታወች ቃለ መጠይቅ***
101	እድሜ -------------------
102	አድራሻ 1. ገጠር 2. ከተማ
103	ሀይማኖት 1. ኦርቶዶክስ 2. ፕሮቴስታንት 3. ሙስሊም 4. ካቶሊክ 5. ሌላ ከሆነ ይጠቀስ
104	የጋብቻ ሁኔታ 1. ከትዳር አጋር ጋር ያለች 2. የፈታች 3. ተለያይታ የተቀመጠች 4. ያላገባች
105	መጀመሪያወን ሲያገቡ እድሜዎ ስንት ነበር --------------
106	ያገቡት 18 አመት ሳይሞላዎ ከነበር ምክንያቱ ምንድን ነው? 1. ቤተሰቦቸ በህይዎት እያሉ አዱኛ ማየት ስለፈለጉ አስገድደውኝ 2. ለማግባት ስለፈለኩ 3. ቤተሰብ ጥሎሽ ለማግነት ስለፈለጉ 4. ቤተሰብ ከትምህርት እና ሌሎች ዎጭዎች ለማለፍ ስለፈለጉ 5. ቤተሰቦቸ በአካባቢው ማህበለሰብ እንዳንሰደብ ልጃችንም እንዳትሰደብ በማለት(ቆሞ ቀር ደግሶ የማያበላ------) 6. ሌላ ካለ ይጠቀስ
107	የሚሰሩት የስራ አይነት ምንድን ነዉ? 1. ግብርና/ አርሶ አደር 2. የመንግስት ስራ 3. የግል ቅጥር 4. ንግድ 5. ተማሪ 6. ሌላ ካለ ይጠቀስ
108	አሁን የሚኖሩት ከማን ጋር ነው 1. ከባለቤቴ ጋር 2. ለብቻየ 3. ከቤተሰቦቸ ጋር
109	የትምህርት ደረጃዎ ምንድን ነዉ? 1. አልተማርኩም 2. ከ አንደኛ እስከ አራተኛ ክፍል 3. ከ5ኛ እስከ 8ኛ ክፍል 4. ከ9ኛ እስካ 12ኛ ክፍል 5. ከ12ኛ ክፍል በላይ
110	የወርሃዊ ገቢ መጠናችሁ ስንት ነዉ?(በብር)----------------------
111	የቤተሰብዎ የበላይ ጠባቂ/ሃላፊ ማነዉ?

	1. ባሌ 2. አባቴ 3. እናቴ 4. ታላቅ ወንድሜ 5.እኔ 6. ታላቅ እህቴ
200	***የጾታዊ እና የስርአተ -መራቦ ጤናን በተመለከተ***
201	የአሁኑ እርግዝናዎ የተከሰተው ከ20 አመትዎ በታች ነው? 1.አወ 2. አይደለም
202	ከዚህ በፊት ከ20 አመት በፊት አርግዘው ያውቃሉ ? 1. አወ 2. የለም
203	ከሀያ አመት በታች ያረገዙበት ምክንያት ምን ነበር? 1. በለጋ/በወጣትነት እድሜየ ስለተዳርኩ 2. በወሲባዊ ትንኮሳ 3. በአደንዛዥ እጽ ተጽእኖ 4. ለማርገዝ ስለፈለኩ 5. የወሊድ መቆጣጠሪያ ባለመጠቀሜ
204	በስንት አመትዎ ነበር ግንኙነት የጀመሩ? ------------------
205	ከጋብቻ በፊት ግንኙነት አድርገው ነበር? 1. አዎ 2. የለም
206	ለተራ ቁጥር 205 አዎ ካሉ የግንኙነት ምክንያቱ ምን ነበር? 1. ግንኙነት ለማድረግ ስለፈለኩ 2. ተገድጄ/ ተደፍሬ 3. በቃል ኪዳን/ በሽልማት መልክ ተሰጥቸ 4. ገንዘብ ለማግኘት 5. በስካር/ በምረቃና ምክንያት 6. በቃል ችግር አደርስብሻለሁ ብሎ ስላንገራገለኝ 7. በአቻ ግፊት/ ተጽኖ
207	የሚጠቀሙት/የተጠቀሙት አደንዛዥ እጽ/ቁስ ምን ነበር? 1. አልኮል 2.ጫት 3. አሽሽ 4. ሌላ ካለ ይጠቀስ--------------
208	ግንኙነቱን ተከትሎ የተከሰተ ችግር ነበር ? 1.አወ 2. የለም
209	ለተራ ቁጥር 208 አወ ካሉ የተከሰተዉ ችግር ምን ነበር? 1. የስነ አእምሮ መታወክ/ ድብርት/ እራስን መሳት 2. ኤች. አይቪ.. ኤድስ/ የአባላዘር በሽታ 3. አካላዊ ጉዳት 4. ያልታሰበ/ያልተፈለገ እርግዝና 5. ግንኙነቱን ተከትሎ የተከሰተ ህመም
210	በቤተሰብ ውስጥ ግልጽ የሆነ የስርአተ መራቦ እና የወሲብ ጤና ውይይት ይካሔዳል? 1. አወ 2. አይካሄድም
211	ስለ እናቶች ጤና አገልግሎት መረጃ ለማግኘት የሚጠቀሙት የቱን ነው? ከ1 በላይ መጥቀስ ይቻላል፡፡ 1. ከሬድዮ 2. ከቴሌቭዥን 3. ከድረ መረብ 4 ከጋዜጣ 5.አልመቀምም
212	ስለ ቤተሰብ እቅድ አገልግሎት ያውቃሉ ? 1. አወ 2. አላውቅም

213	የሚያውቁት የወሊድ መቆጣጠሪ ዘዴ የቱ ነው? ከአንድ በላይ መምረጥ ይቻላል 1. በክኒን መልክ የሚወሰድ 5. በመድፌ የሚሰጥ 2. በክንድ ቆዳ ስር የሚቀመጥ 6. ኮንዶም 3. በማጸን ውስጥ የሚቀመጥ 7. ባህላዊ ዘዴ 4. ድንገተኛ የወሊድ መቆጣጠሪያ
214	የወሊድ መቆጣጠሪያ ዘዴዎችን የት ልናገኝ እንችላለን? ከ1 በላይ መምረጥ ይችላሉ 1. ጤና ኬላ 2. ጤና ጣቢያ 3. ሆስፒታል 4. ከግል ጤና ተቋማት 5. አላውቅም
215	የወሊድ መቆጣጠሪያ ተጠቅመው ያውቃሉ? 1. አወ 2. ተጠቅሜ አላውቅም
216	ለጥያቄ ቁጥር 215 አወ ካሉ የትኛውን የወሊድ መቆጣጠሪያ ዘዴ ነው የሚጠቀሙ? የተጠቀሙትን ዘዴ አይነት ከ1 በላይ መምረጥ ይቻላል፡፡ 1. በክኒን መልክ የሚወሰድ 2. በመድፌ የሚሰጥ 3. ኮንዶም 4. በክንድ ቆዳ ስር የሚቀመጥ 5. በማጸን ውስጥ የሚቀመጥ 6. ድንገተኛ የወሊድ መቆጣጠሪያ 7. ባህላዊ ዘዴ
217	የወሊድ መቆጣጠሪያ የማይጠቀሙ ከሆነ በምን ምክንያት ነው? 1. ምንም ግንኙነት አድርጌ ስለማላውቅ 2. ስለ ቤተሰብ እቅድ ዘዴ እውቅና ስለሌለኝ 3. ተገድጄ/ተደፍሬ ስለሆነ 4. ቤተሰብ እንዳልጠቀም ጫና ስለሚያሳድሩብኝ 5. የመከላከያ ዘዴዎችን በቅርበት ስለማላገኝ 6. ለማርገዝ ስለፈለኩ
218	ከ20 አመትዎ በፊት አርግዘው ከነበር የመጨረሻ ውጤት ምን ነበር? 1. ውርጃ 2. ሞቶ የተወለደ 3. በህይወት የተወለደ 4. እየቀጠለ ያለ/ለአሁኑ እርግዝና 5. ከቀኑ በፊት የተወለደ 6. ክብደቱ ዝቅተኛ የሆነ ህጻን
219	ለ218 ጥያቄ የት ቦታ ወለዱ/ ጽንሱ የት ተቋረጠ? 1. ጤና ተቋም 2. በባሂላዊ ዘዴ ከሰፈር አዋቂ ቤት/በልምድ አዋላጅ 3. ቤት ውስጥ
220	የወሊድ/የጽንስ መቋረጡን ተከትሎ የተከሰተ ምን ችግር ነበር? 1. የስነ አእምሮ መረበሽ/ ድብርት/ እራስን መሳት 2. በብልት ደም መፍሰስ/ ደም ማነስ 3. የአካል መመረዝ/ ኢንፌክሽን 4. ማህጸን ጥበት እና በብልት መውለድ አለመቻል 5. በእርግዝና ወቅት የተከሰተ የደም ግፊት
221	የኤች አይቪ ምርመራ ውጤትዎን ያውቃሉ? 1. አወ 2. አላውቅም
222	የኤች አይቪ ምርመራ ውጤት 1. ነጋቲቭ 2. ፖዘቲቭ

<< ስለ ትብብርዎ ከልብ እናመሰግናለን!!!! >>