



INSTITUTE OF PUBLIC HEALTH
COLLEGE OF MEDICINE AND HEALTH SCIENCE
UNIVERSITY OF GONDAR

TEENAGE PREGNANCY AND ITS ASSOCIATED FACTORS IN WOGEDI,
NORTH EAST, ETHIOPIA, 2017

BY: ANTENEH YALEW
ADVISORS

1, TELAKE AZALEA (PhD)
2, YOHANNES AYANAW (MPH)

A THESIS SUBMITTED TO UNIVERSITY OF GONDAR, COLLEGE OF
MEDICINE AND HEALTH SCIENCE, INSTITUTE OF PUBLIC HEALTH,
DEPARTMENT OF REPRODUCTIVE HEALTH IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR DEGREE OF MASTER IN
REPRODUCTIVE AND CHILD HEALTH

JUNE, 2017
GONDAR, ETHIOPIA

UNIVERSITY OF GONDAR
COLLEGE OF MEDICINE AND HEALTH SCIENCE
INSTITUTE OF PUBLIC HEALTH
DEPARTMENT OF INFORMATION SCIENCE

**TEENAGE PREGNANCY AND ITS ASSOCIATED FACTORS IN
WOGEDI, NORTHEAST ETHIOPIA.**

By- ANTENEH YALEW (BSC)

Mobile phone-0913254450

Email-antenehyalew32@gmail.com

Approved by the Examining Board

Director, Institute of Public Health

Signature

Advisors: 1. Dr. Telake Azale (PhD)

2. Mrs. Yohannes Ayanaw (MPH)

Examiner

Acknowledgement

First, I like to forward my deepest appreciation and thanks to my advisors Telake Azale and Yohannes Ayanaw for their constructive advice and support. Next, I like to thank University of Gondar to give this chance, health science librarians and ICT staffs in University of Gondar for providing valuable reference materials.

My gratitude goes to wogedi woreda administration for sponsoring me for my proposed study. I would like to thank data collectors and the study participants for their cooperation during data collection. The last but not least I would like to thank my family, friends, all others who helped me throughout the study.

Table of Contents

Acknowledgement	i
Table of Contents	ii
List of figures.....	iv
List of tables	v
List of acronyms	vi
Abstract.....	vii
Introduction	1
1.1 Back ground	1
1.2 Statement of the problems.....	2
1.3 Literature review	4
1.3.1 Prevalence of teenage pregnancy	4
1.3.2 Factors associated with teenage pregnancy	4
1.4 Justification of the study	8
3. Objectives	9
3.1 General objectives	9
3.2 Specific objectives	9
4. Methods and materials.....	10
4.1 Study area	10
4.2 Study design and period	10
4.3 Source and study population.....	10
4.4 Inclusion and exclusion criteria	10
4.5 Sample size determination.....	10
4.6 Sampling procedures and techniques.....	11
4.7 Study variables	13
4.8 Operational definition.....	13
4.9 data collection tool and procedures	13
4.10 Data processing and analysis.....	14
4.11 Data quality assurance	14
4.12 Ethical consideration	14
5. Results.....	15

6. Discussion	23
7. Conclusion and recommendation	25
7.1, conclusion.....	25
7.2, Recommendation	25
References	26
Annex: I Consent form and questionnaires.....	29
Annex: II. Declaration	43

List of figures

Figure 1: Conceptual frame work adopted from literature review	7
Figure 2: selection procedure and technique illustration	11
Figure 3: Reasons for teenage pregnancy in wogedi -----	18

List of tables

Table 1, sample size calculation of associated factors-----	10
Table 2 socio-demographic characteristics of teenagers in wogedi,north east,ethiopia,2017-----	14
Table 3 sexual expriance and pregnancy history of respondents in wogedi,northeast,Ethiopia.-----	16
Table 4 Bivariate and multivariate logistic regression analysis of factors associated with teenage pregnancy-----	19

List of acronyms

ABR	Adolescent Birth Rate
AGP	Adolescent Girl Pregnancy
AOR	Adjusted Odds Ratio
CI	Confidence Interval
CO	Crude Odds Ratio
EDHS	Ethiopian Demographic Health survey
FDG	Focus Group Discussion
ICT	Information Communication Technology
W H O	World Health Organization

Abstract

Background: The proportion of births that take place during adolescence is about 2% in China, 18% in Latin America and the Caribbean and more than 50% in sub-Saharan Africa. Teenage pregnancy was associated with a significantly higher risk of pregnancy induced hypertension, pre-eclampsia, eclampsia, premature onset of labor, fetal deaths and premature delivery. Increased neonatal mortality and morbidity were also seen in babies delivered to teenage mothers. Younger teenager group was most vulnerable to adverse obstetrics and neonatal outcomes.

Objectives: To assess the prevalence and associated factors of teenage pregnancy in wogedi, Northeast, Ethiopia, 2017.

Methods: Community based cross-sectional study design was carried out among 514 teenagers in wogedi, northeast, Ethiopia from April to May 2017. Data were collected using closed-ended questionnaires. The collected data were entered into Epi-info version 7.1 and analyzed by using SPSS version 20.

Results: the prevalence of teenage pregnancy in wogedi was 28.6% (CI: 24.9, 32.5). Age (AOR=2.13; 95% CI: 1.55, 2.88), working as a farmer (AOR=3.52; 95%CI: 1.10, 11.21) and not using contraceptive (AOR=10.67; 95% CI: 5.31, 21.32) were found to have statistically significant association with teenage pregnancy.

Conclusion and recommendation: teenage pregnancy was high in wogedi as compared to EDHS 2016 reports and the contributing factors were age, working as a farmer and not using of contraceptives. The use of contraceptives and delaying marriage need to be encouraged.

Key words: teenage pregnancy, contraceptive use and unwanted pregnancy.

Introduction

1.1 Back ground

The adolescents aged 10-19 years in the world about 1.2 billion in 2011 constituting 18% of the total world population. About 90% of the adolescents live in developing countries and the proportion of adolescents ranged from highest 25% in Ethiopia, Yemen and Zimbabwe to lowest 15% in china and Thailand(1). World health organization in 2011 report showed that about 16 million women 15–19 years old gives birth each year, about 11% of all births worldwide. Ninety-five per cent of these births occur in low- and middle-income countries. The average adolescent birth rate in middle income countries is more than twice as high as that in high-income countries, with the rate in low-income countries being five times as high. The proportion of births that take place during adolescence is about 2% in China, 18% in Latin America and the Caribbean and more than 50% in sub-Saharan Africa. Half of all adolescent births occur in just seven countries: Bangladesh, Brazil, the Democratic Republic of the Congo, Ethiopia, India, Nigeria and the United States(1).

Girls living in developing countries are the most at risk of adolescent pregnancy, on average, one third of young women in developing countries give birth before age 20 (2). Teenage pregnancy is wide spread in Ethiopia and it is an important demographic factor as Ethiopia is the second most populous country in Africa with a total estimated population of 77.1 million in 2007. Out of the total population sixty percent is below the age of 20 and 18.6 million women fall within the reproductive age group (3).

In Ethiopia two million and 24 % of girls are giving birth before the age of 18. Several studies have shown that mean age of adolescents to become pregnant in Ethiopia is 16 years(4).

1.2 Statement of the problems

Younger teenager group was most vulnerable to adverse obstetrics and neonatal outcomes. Study conducted in Mexico show that teenage pregnancy causes lower school attendance, poverty and higher rate of marriage(5). Other retrospective study in Thailand shows that incidence of teenage pregnancy was 90 per 1000 girls and lower gestational age at delivery, high preterm delivery rate, inadequate antenatal care follow up and low birth weight infants(6).

Approximately 90 percent of adolescent pregnancies in the developing world are to girls who are married, due to their higher exposure to sex, lower probability of using contraception compared to their unmarried peers, and pressure to conceive quickly after marriage (7-9). As a result, the majority (75 percent) of adolescent pregnancies are planned(8).

Teenage pregnancy was associated with a significantly higher risk of pregnancy induced hypertension, pre-eclampsia, eclampsia, premature onset of labor, fetal deaths and premature delivery. Increased neonatal mortality and morbidity were also seen in babies delivered to teenage mothers (10).

In South Africa adolescent pregnancy was 19.2%. Of those 16.2% of the women indicated that they ever had an unwanted pregnancy and 6.7% had ever terminated a pregnancy. Employment, poverty and contraceptive use were associated with adolescent pregnancy(11)

Adolescent pregnancy is associated with higher rates of morbidity and mortality of both the mother and infant. A review on teenage pregnancy reported that 25% of all pregnancies in Sub-Saharan Africa and Asia end in induced abortion(12).

In Nigeria the prevalence of teenage pregnancy was 49%. Factors identified to influence teenage pregnancy were socio demographic factors, marital status, education, employment and societal factors(13).

In Ethiopia teenage pregnancy was 20.4%. The median age of subjects at first sexual intercourse and at first marriage being 16 and 17 years respectively. High proportion of (46.8%) teenagers had engaged in premarital sex. Among sexually active teenage females, 46.7% experienced their first sexual encounter by coercion. Being young,

single, housemaid and use of family planning have association with teenage pregnancy(14).

Complications from pregnancy and childbirth are the leading cause of death for adolescent girls between the ages of 15 and 19 in poor countries. Girls in this age group are twice as likely to die from pregnancy and childbirth-related causes, compared with older women. Children born to teenage mother are 50% more likely to die before the age of one than those born to women in their twenties. Furthermore, among teenagers who become pregnant only few of them seek antenatal and delivery care from health professionals(15-17).

The national median age at first sexual intercourse for women age 25-49 years is 16.6 years, and the median age at first marriage being 17.1 years among women aged 20-49 years by the year 2011, indicates that adolescent sexual activity and early marriage are common among women of reproductive age group in Ethiopia(18).

1.3 Literature review

1.3.1 Prevalence of teenage pregnancy

Adolescent pregnancy is reported and analyzed using the percentage of women aged 20 to 24 with a live birth before ages 15 or 18, respectively, and the adolescent birth rate (ABR) among women 15-19 years of age. Although both estimates provide an approximation of the reality of adolescent pregnancy, both offer different information. Although the measurement of the percentage of women aged 20 to 24 who are married or in a union before the ages of 15 and 18 is retrospective, it is the closer estimation of the prevalence of pregnancies among girls under the age of 18 or 15. Other indicators, such as the percentage of adolescents aged 15 to 19 who are currently pregnant or who have had a live birth is affected by censoring—girls not pregnant or without a live birth still face the risk of pregnancy before they reach age 18.

In Asia-Pacific region adolescent pregnancy aged 15-19 was highest in Bangladesh (6.1%) and lowest in Vietnam (1.6%). In Latin America the prevalence of adolescent pregnancy was 4.3% in Colombia and 3.9% in Mexico. In sub-Saharan Africa, Mali (5.4%), Uganda (5.7%) and Zimbabwe (5.5%) had similar high rates of adolescent pregnancy. the lowest rate of adolescent pregnancy was in south Africa (2.3%). In north Africa, the highest prevalence of adolescent pregnancy was in Egypt (9.6%) and lowest in Tunisia (0.9%)(19).

Study conducted in Nigeria show that teenage pregnancy was 51%(20). Other study in the Niger delta of Nigeria also show that teenage pregnancy was 6.2% (21). Additionally comparative study in western Nigeria show that teenage pregnancy was 22.9%. Of those 48.2% them was unwanted pregnancy(22).

Ethiopian 2016 demographic and health survey show that 13 percent of women age 15-19 have begun childbearing. 15 percent in rural and 5 percent in urban and among women in Afar (23%), Somalia (19%), Amhara (8.3%) and Addis Ababa 3 percent(23).

1.3.2 Factors associated with teenage pregnancy

The contributing factors for teenage pregnancy can be related to the individual herself, social/structural/environmental factors and the interaction between the individual and her social/structural/environmental situation. Study conducted in sub-Saharan Africa

indicated that teenage pregnancy was associated with community levels of poverty and unemployment while it was not associated with the head of the household's age (13).

In south Asia, Socio-economic factors, low educational attainment, cultural and family structure were all consistently identified as risk factors for teenage pregnancy. Majority of teenage girls are reported with basic knowledge on sexual health however, very few of them have used the knowledge into practice. Both social and medical consequences of teenage pregnancies are reported consistently along the most of the studies(24).

Teenage pregnancy regional study in Latin America shows that the factors causing adolescent pregnancy were a result of complex environment and a combination of macro environment that determines the current opportunities for a teenagers who has a formal educational inequality and the local or household environment which includes social norms, family history, social-networking and peer pursuers(25).

Study in south Sudan explore that associated factors with teenage pregnancy included poverty, peer pressure, non-use of contraceptive, desire for child, forced marriage, low educational level and need for dowries(26). Other study in Eritrea also show that marriage was the most important factors causing women to initiate early childbearing and nearly all first birth (97%) among teenager occur within marriage(27).

Study in Ethiopia indicates that the major factors associated with adolescent fertility were age, educational status, place of residence, employment, marriage and contraceptive use(28).

Study in South Africa explore that the majority of the teenagers held a negative attitude toward teenage pregnancy with 77% of females and 85% of the males regarding it as wrong. 65% indicated that they considered teenage pregnancy wrong in terms of their culture. Regarding perception contributing to teenage pregnancy were: having sex without considering consequences such as pregnancy (57%), girls choosing to get pregnant (56%), being ashamed to use contraceptives (50%): fear of parental reaction to contraceptive use (49%), not trusting contraceptives (43%) and falling pregnant unintentionally (40%). Fewer teenagers reported that teenage pregnancy was caused by teenage girls seeking to prove that they could bear a child (23%) or the belief that occasional sex could not lead to pregnancy (19%)(29).

In Ethiopia adolescent motherhood has been associated with negative social psychological and societal outcomes and society's perception towards adolescent pregnancy/ motherhood varies with cultural settings. Even though motherhood before marriage is unacceptable there is a tendency to push young girls to have children relatively at a younger age. There is a saying "Lij beljenet" to motivate young people to have children yet in this cultural setting society doesn't accept motherhood before marriage(30).

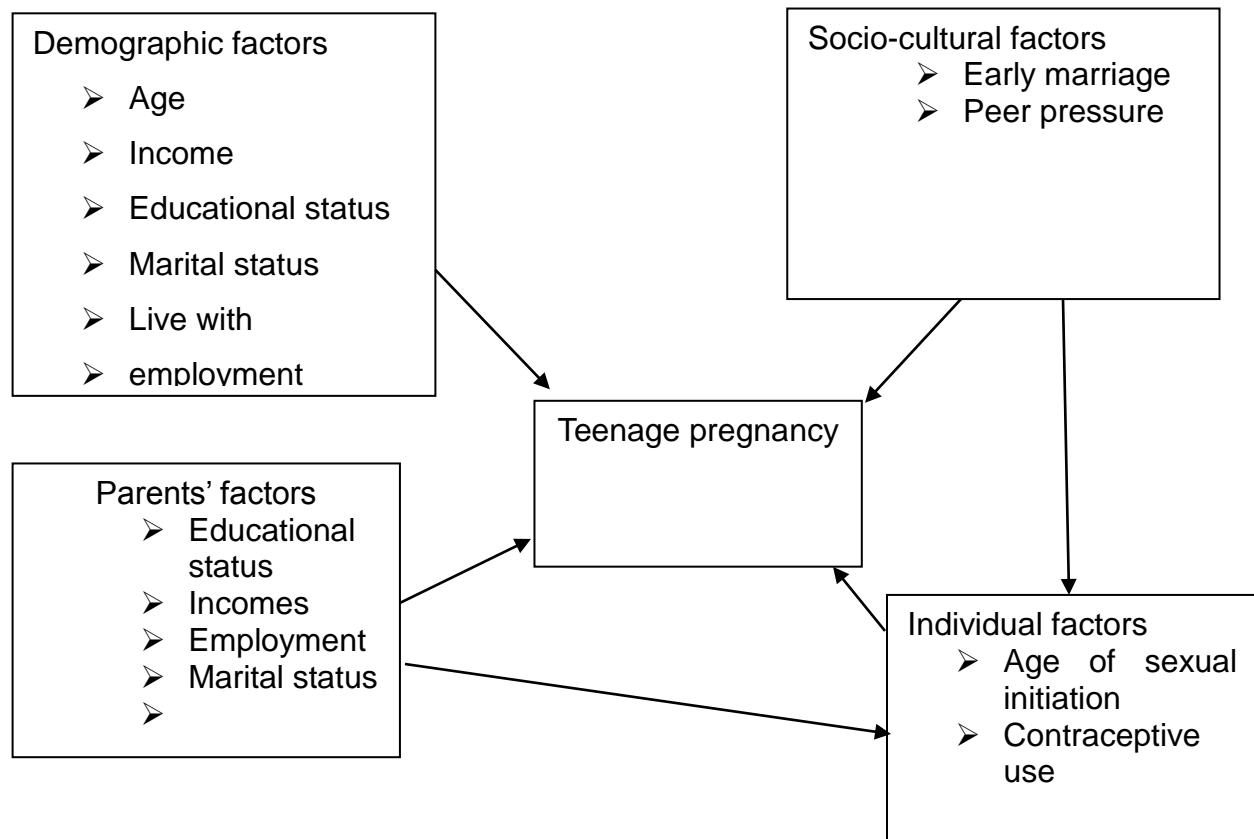


Figure 1: Conceptual framework on factors associated with teenage pregnancy adopted from literature review

1.4 Justification of the study

Ethiopia has a high incidence of teenage pregnancies and incomplete and unsafe/septic abortions, particularly among adolescents. According to EDHS 2011, among women aged 25-49, 29% had first sexual intercourse before age 15 years and 62% before age 18.

Various reports and researches in Ethiopia have identified determinants of teenage pregnancy and fertility but most of the findings were from nationwide survey and facility based study. Additionally, much of them focus on fertility and use of maternal health service among the general population of reproductive age group rather than this specific age group.

.

3. Objectives

3.1 General objectives

To assess the prevalence and associated factors of teenage pregnancy in Wogedi woreda, 2017.

3.2 Specific objectives

1. To determine the prevalence of teenage pregnancy among women in wogedi.
2. To identify factors associated with teenage pregnancy among women in wogedi.

4. Methods and materials

4.1 Study area

Wogedi one of south wollo zone woreda, which is 192 km far from Dessie in the west. According to the national census report of 2007, the projected population of wogedi for the year 2016 was 152,719 and among those 26.5% was adolescents from 10-19 years (31). Wogedi has 35 kebeles. There are woreda health office, five health centers and 32 health posts (31).

4.2 Study design and period

Community based cross-sectional study design was conducted in wogedi from April to May 2017.

4.3 Source and study population

4.3.1 Source population

All females' from 15-19 years were the source population for the study.

4.3.2 Study population and samples

Study populations was all females 15-19 years live in selected kebeles.

4.4 Inclusion and exclusion criteria

Inclusion criteria: females 15-19 years

Exclusion criteria: pregnant females age before 15 years.

4.5 Sample size determination

For the first objective the sample size was determined by using a single population proportion formula.

The following assumption was made to determine the sample size: To obtain the minimum sample size, the population proportion for teenage pregnancy in Ethiopia among women 15-19 years was 20.4% (14), with the margin of error 5% and 95% confidence interval, and finally by considering a design effect 2 and adding 10% for non-response rate compensation.

Therefore, the minimum sample size was calculated as follows;

$$N = \frac{\left(\frac{z_{\alpha/2}}{2}\right)^2 \times p(1-p)}{d^2}$$

$$= \frac{(1.96)^2 \times 0.2(1-0.8)}{(0.05)^2} = 246$$

Where,

- n= the required sample size
- $z_{\alpha/2}$ = critical value for normal distribution (standard curve) at 95% confidence level which equals to 1.96 (z value at $\alpha = 0.05$, two tailed)
- p= the proportion of teenage pregnancy among women 15-19 years
- d= the margin of error (0.05 (5%) desired precision)

By adding a 10% non-response rate and a consider design effect of 2 to the study sample the final study samples were included a total number of 542 adolescent females.

For the second objectives to calculate the sample size use EPI info version 7.2.1.0 the most factors to cause teenage pregnancy was early marriage which was 60% ,early sexual initiation (20.8%) and contraceptive use (65.9) proportion(14), 95% confidence interval,80% power and ratio 1.1.

Table 1, sample size calculation formats to associated factors.

factors	proportion	CI	power	ratio	sample
Contraceptive use	65.9	95%	80	1:1	88
Early initiation of sex	20.8	95%	80	1:1	28
Early marriage	60	95%	80	1:1	215

The larger sample size is 215. Adding 10% non- response rate and design effect 2. Then total sample size was 474. The final sample size was the larger of the two which is 542.

4.6 Sampling procedures and techniques

A multi-stage sampling technique was employed in order to select the study units. First, from the 35 kebeles select 20% of population in the kebeles randomly using lottery methods. These were 03, 06, 13, 15, 19, 26 and 34. Second from each selected

kebeles, by population proportion size study participants were selected randomly house to house.

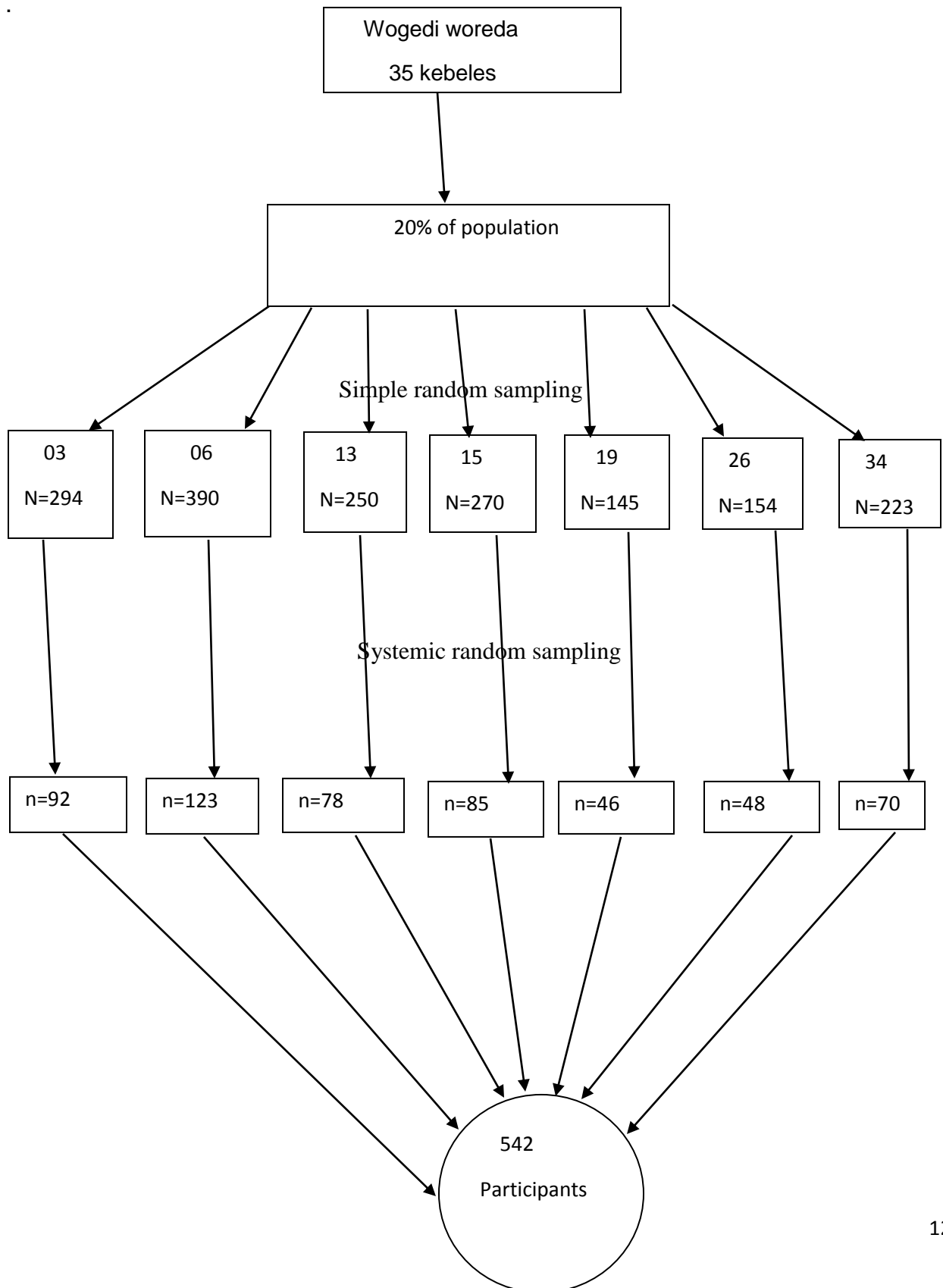


Figure 2: selection procedure and technique illustration

4.7 Study variables

Dependent variable: Teenage pregnancy

Independent variable: age, sex, marital status, level of education, level of income, age at first intercourse, early marriage, contraceptive use, perception on teenage pregnancy, family incomes, family education, head of household, peer pressure and casual sex.

4.8 Operational definition

Teenage pregnancy: pregnancy of adolescent aged 15-19 years who perceive pregnant and tells by health professional.

4.9 data collection tool and procedures

Data was collected using structured questionnaires. It was prepared in English and translated in to Amharic. The Amharic version was again translated back to English to check for consistency of meaning. The questionnaires were included socio demographic characteristics; teenage pregnancy history, sexual activities and contraceptive use history of the females. Questionnaires were pretested before data collects. It was done to decrease any inconveniences and possible ambiguities of the prevailing data collection tools, and to increase validity and reliability of the tools before undertaking the actual data collection in the planned time period. The data collectors were collected data by interview the participant house to house.

4.9.1 Data collectors

For structured questionnaires four data collectors and one supervisors were used to collect data. The data collector and the supervisor were females in order to make the respondents comfortable. Two days training was given for the data collectors and supervisors which help them to know about the objective, relevance of the study, the right of the respondents.

4.10 Data processing and analysis

The data were checked by supervisors and investigators. The data were edited, entered and cleaned by the principal investigators by using, EPI info data version 7.2.1.0. Then the data were exported and analyzed using SPSS version 20. Descriptive statistics were computed to determine the frequencies, percentages and mean. Bivariate analyses were carried out to examine the relationship between teenage pregnancy and explanatory variables.

Variables that were statistically significant at the bivariate level were included in the multivariate logistic regression to determine determinants of teenage pregnancy among females.

Statistically significant association between dependent and independent variables was measured using adjusted odds ratio at 95% confidence interval.

4.11 Data quality assurance

To get a clear and representative final result, the quality of the data was assured thoroughly; Data collectors were given a clear direction to the study subjects while they were answering to the prepared close-ended questionnaires so that the possible ambiguities that may arise were minimized.

The structured questionnaires were pre-tested before the actual data collection and checked for the clarity and consistency. The data collection tools were interpreted with the local Amharic language version for the fast and easy collection of the proposed data.

4.12 Ethical consideration

Ethical approval was obtained from the institutional review board, College of medicine and health science, Institute of public health Gondar University.

The study participants were informed about the aim of the study, confidentiality of their responses, the right to participate or not and the importance of providing the right information. There were no identifying names on the questionnaire and the information gathered in this study was remained confidential and ensured that it was handled exclusively by the investigators and no one will be able to recognize them in the report.

5. Results

5.1, Socio-demographic characteristics of the study participants:

A total of 514 female teenagers were included in the study with a response rate of 95%. Majority (30.5%) of respondents were 19 years old, with median (IQR) age of 18 (3 years). More than half 270(52.5%) of the respondents were orthodox followers. Three hundred seventeen (61.7%) of the study subjects attended primary school. Regarding marital status of respondents, more than half 271 (52.7%) of them were married. Nearly half 253 (49.2%) of the respondents were students. Two hundred fifty one (48.8%) earned less than 1500 birr per month. [table2]

Table 2. Socio-demographic characteristics of teenagers in Wogedi, Northeast, Ethiopia, 2017.

Variables	Frequency (N=514)	percent
Age in years		
15	86	16.7
16	83	16.1
17	76	14.8
18	112	21.8
19	157	30.5
Religion		
Muslim	244	47.5
Orthodox	270	52.5
Marital status		
Married	205	39.9
Divorced	63	12.3

Widowed	3	0.6
Single	243	47.3
Educational status		
College	5	1
Secondary (9-12)	101	19.6
Primary (1-8)	317	61.7
Unable to read and write	91	17.7
Occupation		
Farmer	173	33.7
House wife	39	7.6
Merchant	18	3.5
Daily laborer	31	6
Student	253	49.2
Live with		
Alone	16	3.1
Husband	164	31.9
Parent	334	65
Expected house hold income		
<1500	251	48.8
1501-7500	244	47.5
>7500	19	3.7

5.2. Sexual experience and pregnancy history of participants

This study shows 337(65.6%) of the respondents initiated sex, of which 130 (38.6%) of them started sex before celebrating their 15 years old birthday. From those who initiated sex, 156 (46.3%) used contraceptive.

The study showed that, the proportion of teenage pregnancy among respondents in wogedi was 147 (28.6%) with 95% CI (24.9, 32.5). Among those pregnant teenagers, 36(24.5%) were currently pregnant and 14(12.6%) were terminated the pregnancy. The study also indicated that majority of the pregnancy 93 (63.3%) were unplanned and 64 (43.5%) of the teenagers feels unhappy for their pregnancy. [table3] The major reasons mentioned by respondents for being pregnant were due to marriage 65%, followed by not using contraceptive (20%) (Figure 3).

Table 3, sexual experience and pregnancy history of teenage in wogedi, north east, Ethiopia, 2017.

Variable	frequency	percent
Sexual initiation status (N=514)		
No	177	34.4
Yes	337	65.6
Age at first sexual initiation (N=337)		
13-15	130	38.6
16-18	205	60.8
>18	2	0.6
Contraceptive use (N=337)		
No	181	53.7
Yes	156	46.3
Reasons for not using contraceptive (N=181)		
Do not have accesses	17	9.4
Do not have knowledge	68	37.6

Family influence	81	44.8
Due to divorced	8	4.4
Wants to be pregnant	7	3.8
Ever pregnant (N=514)		
No	367	71.4
Yes	147	28.6
Currently pregnant (N=147)		
No	111	75.5
Yes	36	24.5
Conditions of pregnancy (N=147)		
Planned	54	36.7
Un planned	93	63.3
Feeling about the pregnancy (N=147)		
Happy	58	39.5
Un happy	64	43.5
Nothing	25	17
Outcomes of pregnancy (N=111)		
Delivered	97	87.4
Aborted	14	12.6

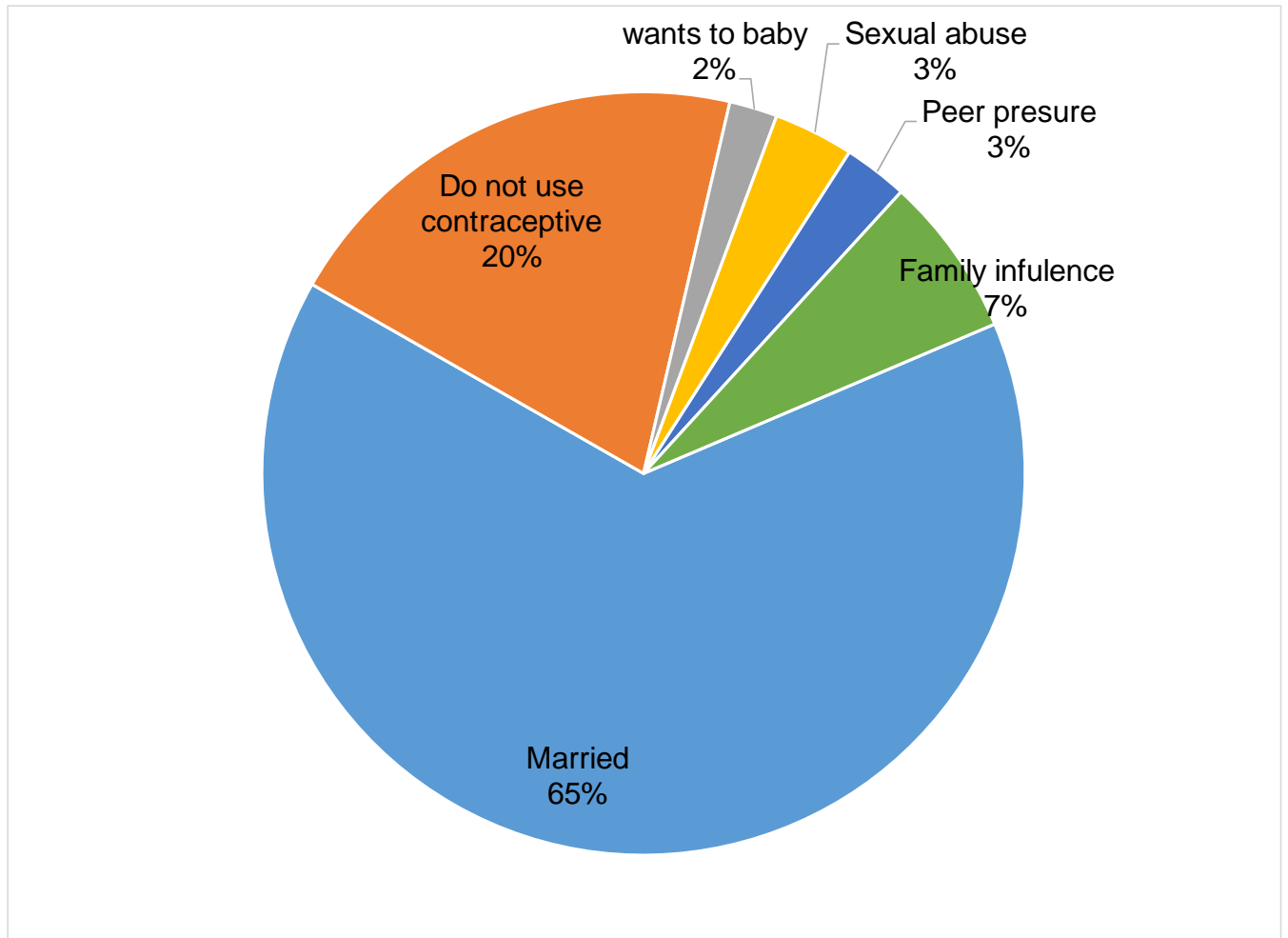


Figure 3, Reasons for teenage pregnancy in wogedi (N=147), north east, Ethiopia, 2017.

5.3 Factors associated with teenage pregnancy

Age, religion, educational status, marital status, occupation, with whom teenagers live with, parent age, parent religion, parents' marital status, parents monthly income and contraceptive use were selected for the multivariable binary logistic regression analysis on the basis of p-value less than 0.2. Age, occupation and contraceptive uses were identified as statistically associated variable with teenage pregnancy by the multivariable binary logistic regression analysis on the basis of AOR, 95% CI and p – value less than 0.05.

This study depicted that teenage pregnancy was statistically significantly associated with age of the respondents. As the age of teenage increase by one year the odd of being pregnant increases by 2.1 (AOR=2.1; CI: 1.55, 2.88). Occupational status of the study subjects was statistically associated with teenage pregnancy. Farmer teenagers had 3.9 times higher chance to be pregnant compared with students (AOR=3.93; 95% CI: 1.20, 12.83). This study also showed that use of contraceptive was found to be significantly associated with teenage pregnancy. Respondents who did not use contraceptives were 10.6 times (AOR=10.62; 95%CI: 5.28, 21.36) more likely to be pregnant compared to their counterparts (Table 4).

Table 4: Bivariate and multivariate analysis of factors associated with teenage pregnancy logistic regression

Variable	Teenage pregnancy		Crude OR (95% CI)	Adjusted OR (95% CI)
	Yes	No		
Age			2.60 (2.12,3.20)	2.10 (1.55,2.88)**
15	1	85		
16	5	78		
17	18	58		

18	34	78		
19	89	68		
Marital status				
Married	111	94	30.7 (14.9, 63)	2.16 (.59, 7.80)
divorced	24	39	16 .0(6.9, 36.1)	1.38(.37, 5.00)
widowed	3	0		
Single	9	234	1	1
Religion				
Muslim	61	183	0.71 (0.48, 1.05)	0.89 (0.61, 3.24)
Orthodox	86	184	1	1
Educational status				
College	2	3	0.5 (0.08, 3.13)	3.00 (.28, 32.1)
Secondary	4	97	0.03 (0.01, 0.09)	.87 (.42, 1.78)
Primary	89	228	0.29 (0.18, 0.47)	.41 (.10, 1.67)
Un able to read and write	52	39	1	1
Occupation				
Farmer	91	82	30.00 (14.5,62.3)	3.935 (1.2,12.8)*
House wife	28	11	69.01 (26.3,180)	4.23 (.94,19.01)
Merchant	12	6	54.22 (16.5,177)	4.26 (.75,24.13)
Daily laborer	7	24	7.91 (2.73, 23.01)	1.42 (.31, 6.57)
Student	9	244	1	1
Live with				
Alone	11	5	16.62 (5.43, 50.04)	3.24 (.55, 18.83)
Husband	97	67	10.91 (6.93,17.01)	2.26 (.81, 6.28)

Parents	39	295	1	1
Monthly income				
<1500	81	170	0.65 (0.25, 1.69)	2.59 (.69, 9.61)
1501-7500	58	186	0.42 (0.16, 1.12)	1.33 (.36, 4.96)
>7500	8	11	1	1
Parent sex				
Male	125	297	0.67 (0.39, 1.16)	1.06(.14, 7.82)
Female	20	70	1	1
Parent age				
30-49	95	265	0.7 (0.46, 1.04)	.963 (.49, 1.86)
>49	52	102	1	1
Parents marital status				
Divorced	5	29	2.2 (0.72, 6.90)	.68 (.12.13, 3.93)
Widowed	14	36	2.42 (0.91, 6.32)	1.54(.12.01, 18.95)
Married	126	302	1	1
Contraceptive use				
No	117	64	7.6 (4.65, 12.67)	10.62 (5.28-21.36)**
Yes	30	126	1	1

Note: * statistically significant variable at p-value less than 0.05 and ** at p-value less than 0.001.

Hosmer and Lemeshow test = 0.292

6. Discussion

This study explored the proportion of teenage pregnancy and associated factors in Wogedi, Northeast Ethiopia. The study showed that the proportion of teenage pregnancy was 28.6% (CI: 24.9, 32.5), which is higher than the study conducted in Assosa general hospital (20.4%) (14). And EDHS 2016 report (13%) (23). the discrepancy could be due to differences in socio-cultural practices such as early marriage and lack of contraceptive service utilization. In this study the participants were teenagers. Whereas other studies included participants were in the range of 20 up to 24 years old. In the ealder group, there could be censoring that might underestimate the proportion of pregnancy. The proportion of teenage pregnancy was also higher than the study conducted in developing countries such as Zimbabwe (5.5%) and in Uganda (5.7%) (19). Of the study participants, 65.5% of teenagers were initiated sex, which is comparable with the figure in Sub Saharan African countries that ranges from 30% in Zimbabwe to 73% in Cote d'Ivoire (32).

In this study as respondents age increases by one year the odds of being pregnant increases by 2.1. Therefore girls insist on making sure became pregnant. This finding is in line with national study in Ethiopia (28) and similar to study conducted in Uganda (33). As age increases, teenagers will have longer exposure to sex and their state of being married will increase to procreate child. If a couple fails to procreate after marriage the lady can be sent packing back home and the man marries another (28, 29).

In terms of occupation, farmer teenagers were more likely to have pregnancy as compared to those respondents who were students. This might be due to the reason that farmers were less educated, limited access to find contraceptive services and less power to decide to using contraceptives. In addition to this not using contraceptive was due to wants to deliver to increase manpower for work. This finding is consistent with finding in another study in sub-Saharan Africa (13).

The result also revealed that respondents who didn't use contraceptive were 10.6 times more likely too pregnant as compared to those who used contraceptive and the association was statically significant. Other studies are also in line with this finding in

which nonuse of contraceptive increased the occurrence of pregnancy (11, 14, & 26). This could be explained by the fact that contraceptive utilization affects by different socio-cultural and individual attitude and perception. In addition to this contraceptive utilization affected with service availability, method mixes and effectiveness of the methods.

Limitations of study

There might be possibility of recall and social desirability bias among respondents which may result in under reporting and misreporting of events. Single study participants might also perceive that responding as pregnant to report socially sensitive information.

7. Conclusion and recommendation

7.1, conclusion

There was high prevalence (28.6%) of teenage pregnancy among adolescents in wogedi. In this study respondent's age, working as a farmer and did not use contraceptive were found to have statically significant association with pregnancy.

7.2, Recommendation

Community leader

- In the revised family law of Ethiopia, the legal age for marriage is 18 for both boys and girls; but significant proportions of adolescents are getting married earlier. Measures should be taken to enforce the legal age of marriage by the concerned bodies.
- Empower adolescents to stay school.
- Involve parents and males in decisions making to delay marriage.

Woreda health office

- Increase contraceptive service utilization of teenage.
- Give health education and promotion for teenage to delay pregnancy.
- Involve community to reproductive health education to support teenage for utilize contraceptive.

Researcher

To assess the impacts of teenage pregnancy on the community, teenage and childen that borne from teenagers.

References

1. World health organization. making pregnancy safer. WHO, 2011.
2. Rowbottom S. „Giving Girls Today and Tomorrow: Breaking the Cycle of Adolescent Pregnancy“. United Nation Population Fund. 2007.
3. Central statistic agency. Population of Ethiopia by Age group, Sex, Urban and Rural. 2007.
4. Dixit P RF, Dwivedi LK. . Determinants of unwanted pregnancies in India using matched case control design. BMC pregnancy child health. 2012(12:84).
5. E.O Arceo-Gomez and R.m Campos V. teenage pregnancy in Mexico. . Latin America journal of economics. 2014;15:109-46.
6. watcharaseranee N. the incidence and complications of teenage pregnancy. Jmed association Thai. 2006;89.
7. Erulkar A. Adolescent lost the reality of child marriage. J adolescent health. 2016;52(5):513-4.
8. Presler-marshall GJ, N. charting the future: Empowering girls to prevent early pregnancy. London. ODI and save the children. 2012.
9. G B. out of wedlock into school: combating child marriage through education. . London: the office of Gordon and Sarch brown. 2012.
10. A.Kumar.et.al. Outcome of teenage pregnancy. Indian journal of pediatrics. 2007;74:927-31.
11. Mchunu. G ea. Adolescent pregnancy and associated factors in South Africa. African health science. 2012;4:426-34.
12. T. L. Trends and outcomes of teenage pregnancy. . Thai Journal of obstetrics and gynecology. 2012;20:162-4.
13. Nwosum. Contemporary factors of teenage pregnancy in rural communities. Abuja state Nigeria. International journal community medicine public health. 2017;4:588-92.
14. Assefa. B ea. Assessment of the magnitude of teenage pregnancy and its associated factors among teenage females. Ethiopia Med j. 2015.
15. activities UNffp. Giving adolescent today and tomorrow: Breaking the cycle of adolescent pregnancy. . 2007.

16. Bearinger CH ea. Global perspectives on the sexual and reproductive health of adolescent: patterns, prevention and potential. . lancet. 2007;369:1220-31.
17. ST C. State of worlds mother: children having children. 2004.
18. international. Csaal. Ethiopian demographic health survey 2011. Addis Ababa, Ethiopia and Calverton, Maryland, USA. 2012.
19. (PPD Pipd. Policy brief on adolescent pregnancy, world population day. 2013.
20. D. J. Prevalence of adolescent pregnancy in Nigeria. . african journal online. 2011;9.
21. L.et.al. I. Outcome of teenage pregnancy in the Niger delta of Nigeria. ETHS. 2012;22.
22. Amolan. a comparative analysis of predictors of teenage pregnancy and its prevention in rural town in western Nigeria. International journal for equity in health. 2012;11.
23. international Csaal. Ethiopian demographic health survey 2016: key indicator report. Ethiopia and Rockville, Maryland, . 2016.
24. Achorya. DR. Factors associated with teenage pregnancy in South Asia: A systematic review. . Health science journal. 2010;4(1).
25. Managua N. International interagency meeting: current evidence, lessons learned and best practice in adolescent pregnancy prevention in Latin America and the Caribbean. 2014.
26. Alemu. GVafM. Factors contributing to and effects of teenage pregnancy in Juba. South Sudan medical journal. 2016;9.
27. Woldemicael G. teenage childbearing and child health in Eritrea. . Mpidr working paper. 2005.
28. Tewodros Alemayehu ea. Determinants of adolescent fertility in Ethiopia. . Ethiop J Health Dev. 2010;24:30-8.
29. Mwaba K. Perceptions of teenage pregnancy among South African adolescents. Health sa Gesondheid. 2000;5.
30. Simachew Y. Teenage Pregnancy and Motherhood in Merkato Slums in Ethiopia: Perspectives of Teenagers and Implications for Sexual and Reproductive Health Policies and Services. 2010(2010).

31. office Wwfaed. Socio- demographic profile of wogedi woreda for the year 2016/2017. 2017.
32. Bearinger LH, Sieving RE, Ferguson J, Sharma V. Global perspectives on the sexual and reproductive health of adolescents: Patterns, prevention, and potential. *The Lancet* 2007; 369: 1220-31.
33. Rutaremwa Gideon. Factors Associated with Adolescent Pregnancy and Fertility in Uganda: Analysis of the 2011 Demographic and Health Survey Data, *Social Sciences*. Vol. 2, No. 1, 2013, pp. 7-13. doi: 10.11648/j.ss.20130201.12

Annex: I Consent form and questionnaires

Annex 1: English version information sheet

Name of the investigator: Anteneh Yalew

Name of organization: University of Gondar, college of Medicine and Health science
Institute of Public Health.

Title of the study: Assessment of the magnitude, its associated factors and perception of teenage pregnancy among women 15-19 years in wogedi.

Objective of the study: To assess the prevalence, its associated factors and perception of teenage pregnancy among women 15-19 years in wogedi.

Introduction:

This information sheet and consent form is prepared to explain the study you are being asked to join. Please listen carefully and ask any questions about the study before you are agree to join. You may ask questions at any time after joining the study.

Procedure: To assess level of magnitude, its associated factors and perception of teenage pregnancy among women 15-19 years in wogedi, we invite you to take part in this study. If you are willing to participate in this study, you need to understand and sign the agreement form. Then after, you will be interviewed by the data collector to give your response. You do not need to tell your name to the data collector and all your response will be kept confidentially by using coding system whereby no one will have access to your response.

Risk of the study: The study has no any risk for the participant and interview also will be private to make safe participants from management related problems and

Benefit of the study: The study participants will not get direct benefit for being participated. The result will be used as a baseline for further studies that can be done in

these areas. The result will be presented to University of Gondar, college of Medicine and Health science Institute of Public Health.

Confidentiality: The information collected from this study will be kept confidential and information about you that will be collected by this study will be stored in a file, without your name, but a code number assigned to it and it will not be revealed to anyone except the principal investigator and will be kept locked with key.

Right to refuse or withdraw: you have full right to refuse from participating in this research. You can choose not to respond to some or all questions if you do not want to give your response. You have also the full right to withdraw from this study at any time you wish, without losing any of your right.

Persons to contact:

1. Anteneh Yalew

Phone: +251913254450

Email: antenehyalew32@gmail.com

2. Dr Telake Azale (advisor)

Phone: +251918771951

Email: atelake07@gmail.com

3. Mr. Yohannes Ayanaw (advisor)

Phone: +251982532074

Email: ayanawyohannes@yahoo.com

Annex-2: Consent Form:

University of Gondar

College of Medicine and health sciences

Institute of Public Health

Department of Reproductive Health

Research questionnaire to assess magnitude, its associated factors and perception of teenage pregnancy among women 15-19 years in Wogedi.

My name is Anteneh Yalew. I am student in University of Gondar college of Medicine and health sciences institute of public health Department of Reproductive Health. I will like to ask your child a few questions. This will help to improve adolescent health. Her name will not be written in this form and will never be used in connection with any information she tells us. All information given by her will be kept strictly confidential. Her participation is voluntary and is not obliged to answer any question she does not wish to answer. If she fill discomfort with the interview she fill free to drop it any time she wants. This interview will take about 30 minutes. Do I have your permission to ask your child?

1. If yes, continue to the next page
2. If no, skip to the next participant by writing reasons for his/ her refusal

Name and signature of the interviewer who sought the consent_____

Date of interview ____/ ____ /_____

Date/ Month /Year

Result of interview: 1.Completed 2.Respondent not available 3.Refused 4. Partially completed

Checked by Supervisor: Name _____ Sig. _____ Date _____

Annex-3: Assent Form

University of Gondar

College of Medicine and health sciences

Institute of Public Health

Department of Reproductive Health

Research questionnaire to assess magnitude, its associated factors and perception of teenage pregnancy among women 15-19 years in Wogedi.

My name is Anteneh Yalew. I am student in University of Gondar college of Medicine and health sciences institute of public health Department of Reproductive Health. I would like to ask you a few questions. This will help us to improve adolescent health and working environment services provided to you based on your answer to our questions. Your name will not be written in this form and will never be used in connection with any information you tell us. All information given by you will be kept strictly confidential. Your participation is voluntary and you are not obliged to answer any question you do not wish to answer. If you feel discomfort with the interview please feel free to drop it any time you want. This interview will take about 30 minutes. Do I have your permission to continue?

1. If yes, continue to the next page
2. If no, skip to the next participant by writing reasons for his/ her refusal

Name and signature of the interviewer who sought the consent _____

Date of interview ____/____/____

Date/ Month /Year

Result of interview: 1.Completed 2.Respondent not available 3.Refused 4. Partially completed

Checked by Supervisor: Name _____ Sig. _____ Date _____

Are you volunteer to participate?

Thank you!

Name of data collector _____ Sign.....

Name of supervisor _____ Sign.....

Code of the questionnaire _____

Name of hospital _____

Date _____

Section 1: Socio-demographic characteristics

S.No	Question	Response	remark
101	sex of respondent	1,females	
102	How old are you?	-----years	
103	What is your religion?	1. Orthodox 2. Muslim 3. Protestant 4. Other specify	
104	Ethnicity	1. Amhara 2. Tigre 3. Oromo 4. Other specify----- --	
105	Marital status	1. Single 2. Married 3. Divorced 4. Widowed 5. Other specify.....	
106	Educational status	1. Unable to read and	

		write 2. Primary(1-8) 3. Secondary (9-12) 4. Higher	
107	Occupation	1. Daily Laborer 2. Government employee 3. Merchant 4. Farmer 5. House wife 6. Student 7. Others Specify.....	
108	Average monthly income	Specify in birr or item----- -----	
109	Whom do you live with?	1. Live alone 2. With my spouse 3. With parents 4. With my friends 5. My relatives 6. Don't need to specify	

Section 2: Socio-demographic characteristics of parents

s.no	Question	Response	Remarks
201	sex of respondents	1.male 2.female	
202	Age of parent/s	----- years	
203	What is your religion?	1. Orthodox 2. Muslim 3. Protestant 4. Other specify-----	

204	Marital status	1. Single 2. Married 3. Divorced 4. Widowed 5. Other specify-----	
205	Educational status	1. Un able read and write 2. Primary 3. Secondary 4. Higher	
206	Occupation	1. Jobless 2. Daily Laborer 3. Government employee 4. Merchant 5. Farmer 6. Driver 7. House wife 8. Others Specify.....	
207	Average monthly income	Specify in birr or items ----- -----	

Section 3.reproductive history

s.no	Question	Response	Remarks
301	Do you start sex?	1.yes 2.no	
302	If yes question 301 at what age do you start sex?	----- years	
303	Have you use contraceptive?	1.yes 2.no	
304	If no question no 303 what is the	1.un availability methods	

	reason?	2.lack of knowledge about methods 3.family or social influences 4.others specify----	
305	Do you ever had pregnant?	1.yes 2.no	
306	If yes question no 305 what is the reason?	1.due to marriage 2.corriedal sex 3.non use of contraceptive 4.peer pressure 5.low achievement of education 6.forced by economic condition 7.situation of family 8.other specify-----	
307	What was the outcome pregnancy?	1.deliverd 2.terminated	
308	What do you feel about pregnancy?	1.happy 2.sad 3.nothing 4.other specify-----	
309	In what condition do you have pregnant?	1.pland 2.unpland	

Thanks for your cooperation!

የመረጃ ቅፅና መጠይቅ በአማርኛ

የምርምሩ/የጥናቱ ርዕስ :- በወግዲ ወረዳ ውስጥ የወጣቶች የርግዝና መጠን ተያያዝ ጉዳይና በርግዝናው ላይ ያለው አስተሳሰብ በተመለከተ

የተመራማሪው ስም :- አንተነህ ያለው

የድርጅቱስም: በጎንደር ዩኒቨርሲቲ ህክምናና ጤናሳይንስ ኮሌጅ የህብረተሰብ ሕክምና አጠባበቅ አንስቲትዩት፡፡

ዋና አላማውም:- ስለምርምሩ ዓላማ፣ ስለመረጃ አሰባሰብ እንዲሁም ጥናቱን ለማካሄድ ፍቃድ ለማግኘት ከላይ የተገለፁትን አካላት ግልፅ እንዲሆንላቸው ለማድረግ ነው፡፡

የጥናት ፕሮጀክቱ የሚካሄድበትም ክፍል: በወግዲ ወረዳ ውስጥ የወጣቶች የርግዝና መጠን ተያያዝ ጉዳይና በርግዝናው ላይ ያለውን አስተሳሰብ በተመለከተ ማጥናት ነው፡፡

የጥናቱ ግኝት ችግሩን ለመፍታት በተለይም ደግሞ ጥናቱ በሚካሄድበት ቦታ ትክክለኛ የሆነ የመፍትሄ አቅጣጫ ለመቅረፅ እንደመነሻ መሠረት ያገለግላል፡፡

አተገባበር:- የጥናቱን አላማ ለማሳካት በወግዲ ወረዳ ውስጥ የሚገኙ እድሜያቸው ከ15-19 ያሉትን ያካትታል

ሊገጥም የሚችል ችግር /አለመመቻቅ :- በዚህ ጥናት ላይ ምንም የሚደርስባቸው ጉዳት የለም፡፡ ነገርግን መረጃቸው ለጥናቱ በጣም አስፈላጊ ነው፡፡

ጥቅሞች:- በዚህ ጥናት ተሳታፊ የሚሆኑትን ወጣቶች በቀጥታ ሊያገኙት የሚችሉት ጥቅም ባይኖርም ለጥናቱ መሳካት ግን ጠቀሜታ አለው፡፡

የተሳትፎ ክፍያዎች:- በጥናቱ በመካፈልዎ የሚሰጥ ክፍያ የለም፡፡

ሚስጥር ስለመጠበቅ፤ በዚህ ጥናት የሚሰበሰብ መረጃ በሚስጥር ይጠበቃል፡፡ የሚሰበሰበው መጠይቅ የእርስዎ ለመሆኑ መለያ አይኖረውም፡፡ መረጃው በዋና ተመራማሪው ድብቅ ፋይል ተደርጎ በቁልፍ የሚቀመጥ በመሆኑ ሌላ ሰው ሊያገኘው አይችልም፡፡

በጥናቱ ያለመሳተፍ ወይም ራስን ከጥናቱ የማግለል መብት:

በጥናቱ ላለመሳተፍ ከፈለጉ በዚህ ጥናት ያለመሳተፍ ሙሉ መብት አለዎት፡፡ ከመጠይቁ ውስጥ የተወሰኑ ጥያቄዎችን ወይም በሙሉ አለመመለስ ይቻላል፡፡

የፍቃደኝነት መጠየቂያ ቅጽ ለቤተሰቦቻቸው

መግቢያ፡ ሠላም እንደምን አሉ?

ስሜ_____እባላለሁ፡፡ይህን ጥናት የሚያካሂደው የጎንደርዩኒቨርሲቲ የሀ/ሰብጤናሳይንስ ተማሪ በሆኑት አንተነህ ያለው ነው፡፡ ልጅዎትን ጥያቄዎች ልንጠይቃቸው ስለሆነ እንዲያውቁት ሲሆን ልጆችም በመጠየቃቸው ምንም ጉዳት የማይደርስባቸው ከመሆኑ በተጨማሪ የተናገሩት ወይም የሰጡት መልስ ከተመራማሪው ውጭ ሌላ ሰው ሊያውቀው አይችልም፡፡ በጥናቱ ላይ በመሳተፋቸው የሚደርስባቸው ጉዳት የለም፡፡

በመጠይቁ እንዲሳተፉ ፍቃደኛ ነወት?

አመሰግናለሁ፡፡

የፍቃደኝነት መጠየቂያ ቅጽ ለወጣቶች

መግቢያ፡ ሠላም እንደምን አሉ?

ስሜ_____እባላለሁ፡፡ይህን ጥናት የሚያካሂደው የጎንደር ዩኒቨርሲቲ የሀ/ሰብጤናሳይንስ ተማሪ በሆኑት አንተነህ ያለው ነው፡፡ ለምንጠየቀውት ጥያቄዎች የዕርሰዎ ትክክለኛ መልስ በጣም አስፈላጊ ነው፡፡ በጥያቄዎቹ ዙሪያ ጥርጣሬ ካደረጋችሁ ጠያቂውን እንደገና መጠየቅ ይችላሉ፡፡ ከእርሰዎ የምናገኘውን ማንኛውንም መልስ በሚስጥር እንጠብቃለን ከዚህ ጥናት ጋር በተያያዘ በማንኛውም ቦታ እና ጊዜ ስምዎ እንደ ማይመዘገብና እንደማይጠቀስ ልንገልፅለዎት እነወዳለን፡፡

ለጥናቱ የምናሳትፍዎ የእርሰዎ ሙሉ ፍቃደኝነት ሰናገኝ ብቻ ነው፡፡ በመጠየቁ ያለመሳተፍ ያለመመለስ መብትዎ የተጠበቀ ነው፡፡ መጠይቁ 30 ደቂቃ ሊወስድ ይችላል፡፡

በመጠይቁ ለመሳተፍ ፍቃደኛ ነወት?

አመሰግናለሁ፡፡

የመረጃስብሳቢስም _____ ፊርማ _____

የተቆጣጣሪውስም _____ ፊርማ _____

መጠይቁየተሞላበትቀን _____

የመረጃመስብሰቢያቅጽቁጥር _____

የተሳታፊውኮድ _____

ክፍል 1 የግልሁኔታመጠይቅ

ተ.ቁ	ጥያቄ	ምላሽ	ይለፉ
101	ፆታ	1. ሴት	
102	እድሜ	-----አመት	
103	ኃይማኖት	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ሌላካለይጥቀሱ.....	
104	የጋብቻሁኔታ	1. ያላገባ/ች 2. ያገባ/ች 3. የተፈታ/ች 4. የሞተበት/ባት 5. ሌላካለይጥቀሱ.....	
105	የትምህርትደረጃ	1. ማንበብናመጻፍየማይችል/ 2. አንደኛደረጃ 3. ሁለተኛደረጃ 4. ኮሌጅናከዚያበላይ	
106	ሥራ	1. ሥራፈላጊ 2. የቀንስራተኛ 3. የመንግስትስራተኛ 4. ነጋዴ 5. ገበሬ 6. የቤትአመቤት 7. ተማሪ 8. ሌላ /ይጥቀሱ.....	
107	ወርሃዊገቢ	-----	

108	ከማንጋርነውሚኖሩት;	1. ብቻየን 2. ከባለቤቴጋር 3. ከቤተሰቦቼጋር 4. ከዘመድ ጋር 5. መግለጽአልፈልግም	
-----	--------------	---	--

ክፍል 2 የቤተሰብመጠይቅሁኔታ

ተ.ቁ	ጥያቄ	ምላሽ	ይለፍ
201	ፆታ	1.ወንድ 2.ሴት	
202	እድሜ	-----አመት	
203	ኃይማኖት	1.አርቶዶክስ 2.ሙስሊም 3.ካቶሊክስ 4.ፕሮቴስታንት	
204	የጋብቻሁኔታ	1.ያገባ/ባች 2.ያላገባ/ባች 3.የተፋታ/ች 4.የሞተበት/ባት	
205	የትምህርትደረጃ	1. ማንበብናመጻፍየማይችል/ 2. አንደኛደረጃ 3. ሁለተኛደረጃ 4. ኮሌጅናከዚያበላይ	
206	ሥራ	1. ሥራፈላጊ 2. የቀንሰራተኛ 3. የመንግስትሰራተኛ 4. ነጋዴ 5. ገበሬ 6. ሹፌር 7. የቤትአመቤት 8. ተማሪ 9. ሌላ /ይጥቀሱ.....	
207	ወርሀዊገቢ	-----	

ክፍል 3. የስነ-ተዋልዶሁኔታ

ተ.ቁ	ጥያቄ	ምላሽ	ይለፍ
301	የግብረ ስጋ ግንኙነት አድርገሽ ታውቂያለሽ	1.አዎ	

		2.አላውቅም	
302	መልሱ አዎ ከሆነ መቸ	----- አመት	
303	የርግዝና መከላከያ ትጠቀሟል	1.አዎ 2.አልጠቀምም	
304	መልስሽ አልጠቀምም ከሆነ ምክኒያቱ ምንዴን ነው	1.አገልግሎቱን/መከላከያዎችን ባለማገኘቱ 2.በቂ እወቀት ስለሌለኝ 3.በቤተሰብ/በማህበረሰብ ተፅኖ 4.ሌላ ካለ ይግለጹ	
305	አርግዝሽ ታወቁልሽ	1.አዎ 2.አላወቅም	
306	መልስሽ አዎ ከሆነ ለማርገዝሽ ምክኒያቱ ምንዴን ነው	1.በማግባቱ 2.የጾታ ጥቃት 3.የርግዝና መከላከያ ባለመጠቀሜ 4.ዝቅተኛ የትምህርት ወጤት በማስመዝገቤ 5.በኢኮኖሚ ምክኒያት 6.በቤተሰብ ሁኔታ 7.በጎደኛ ተጽኖ 8.ሌላ ካለ ይግለጹ	
307	እርግዝናወን ምን ሆነ	1.ተወለደ 2.አስወረድኩት	
308	በማርገዝሽ ምንተሰማሽ	1.ደስታ 2.መበሳጨት 3.ምንምአልተሰማኝ	
309	ያረገዝሽዉ በምን ሁኔታ ነው	1.በእቅድ 2.ያለእቅድ	

ስለ ትብብርዎ አመሰግናለሁ

Annex: II. Declaration

I, the undersigned, MPH student declare that this thesis is my original work in partial fulfillment of the requirement for the degree of Master of Public Health.

Name: Anteneh Yalew

Signature: _____

Place of submission: Institute of public Health, College of Medicine and Health Sciences, University of Gondar.

Date of Submission: _____

This thesis work has been submitted for examination with our approval as university advisor(s).

Advisor(s):

Signature

Date

1. Dr. Telake Azale (PhD)

2. Mrs. Yohannes Ayanaw (MPH)

ASSURANCE OF INVESTIGATOR

The undersigned agrees to accept responsibility for the scientific, ethical and technical conduct of the research project and for provision of required progress reports as per terms and conditions of the research and publication office of the University of Gondar.

Name of the student: Anteneh Yalew

Date: _____ Signature: _____

Approval of the advisor (s)

Advisors

Name	Signature	Date
1. Dr. Telake Azale (PhD)	_____	_____
2. Mrs. Yohannes Ayanaw (MPH)	_____	_____