

Prevalence of Unwanted Pregnancy and Associated Factors among Pregnant Women Attending Antenatal Care at Durame Maternal and Child Health Center Southern Ethiopia 2018

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Abstract

Background: Unwanted pregnancy was an important public health issue in developed and developing countries. In Ethiopia, the estimates of unwanted pregnancy indicate that it was one of the major reproductive health problems with all its adverse outcomes.

Objective: The aim of this study was to assess the prevalence of unwanted pregnancy and its associated factors among pregnant women attending Antenatal Care at Durame Maternal and Child Health center, Southern Ethiopia, 2018.

Methods: institution based cross-sectional study design was used. The study period was from April 21, 2018, July 20, 2018. The study includes 385 pregnant women were selected by systematic sampling method who visited Durame maternal and child health center. A structured questionnaire was used for data collection. Data was entered and analyzed using SPSS 20. Bivariate and multivariate analyses were used to assess the association and declare significance of the associations ($p < 0.05$).

Results: Among surveyed respondents, 103(26.8%) of them had unwanted pregnancies. Total number of pregnancy (AOR = 0.09; 95% CI: 0.037, 0.229), taking family planning according to instruction (AOR = 3.6; 95% CI: 1.59, 8.24) and desired number of children (AOR = 2.80; 95% CI: 1.19, 6.60) significantly associated factors with unwanted pregnancy.

Conclusion: The study indicates that unwanted pregnancy is one of the prevalent reproductive health problems in the study area. Family health planners in Durame town should consider enhancing counseling for better contraceptives use, promoting modern contraceptives and increasing men involvement in family planning.

Keywords: Prevalence; Unwanted pregnancy; Durame town; Ethiopia

Introduction

Unintended pregnancy is a pregnancy that is either unplanned or unwanted at the time of conception, and it is a significant public health concern in the world nowadays [1]. Analysis of Demographic and Health Survey data shows that the magnitude of unintended pregnancy in developing countries ranges from 14% to 62% of all births. The highest rate of unintended pregnancy occurs in Sub-Saharan Africa, where about 86 unintended pregnancies occur for every 1000 women of reproductive age [2].

Unintended pregnancy is an important public health problem that predisposes women to maternal deaths and illnesses mainly through unsafe abortions and poor maternity care. It is associated with late initiation and inadequate utilization of antenatal care services, maternal depression and anxiety and smoking and drinking behaviors during pregnancy [3].

The underlying causes of unplanned pregnancies among unmarried adolescents are associated with poverty; lack of timely and appropriate information from parents on issues of sexual and reproductive health; denial of adolescents' access to sexual and reproductive health information and services, inadequate laws and policies; and also ill-equipped health systems which lack confidentiality, convenient opening hours and unfriendly attitudes of staff towards unmarried adolescent girls [4].

Unplanned pregnancy is very common among adolescence and

they have a higher risk than any other age group. In most developed countries as well as in Latin America, the Caribbean and some parts of sub-Saharan Africa the majority of pregnancies in adolescents occurs outside of marriage and are often unplanned and unwanted [5]. In low-income countries, because less availability and options low use of contraception continues to be the main factor influencing the prevalence of unintended pregnancy. Many women and couples in Ethiopia do not have the knowledge, tools or assistance needed to maintain their reproductive health and have the number of children they desire [6].

Family planning is one of the most effective strategies in reducing maternal death due to unwanted pregnancy and risks of unsafe abortion. It can also prevent closely spaced and ill-timed pregnancies and births, which contribute to high infant mortality rate in developing world [2].

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Having high unmet need for family planning (22 %) and low Antenatal Care (ANC) coverage (34 %), Ethiopia is one of the countries with highest maternal (420 death/ 100,000 live birth) and child mortality rate (67/1000 live birth) in the world. Cognizant of this, the Ethiopian government prepared national reproductive health strategy that gave stress on the importance of reducing unintended pregnancy through raising the contraceptive use to 66 % from 36%, which otherwise leads to an estimated 382,000 induced abortion per year [7].

The prevalence and main reasons for this problem had still not well known in Durame, Ethiopia. Therefore, this study assessed the prevalence of unplanned pregnancy and associated factors among pregnant mothers attending antenatal care at Durame Maternal and Child health center, Southern Ethiopia.

The study would help to give recent prevalence of unwanted pregnancy in Durame town for policy makers and health planners to design strategy to improve reproductive health status of reproductive age women. The study result also serve as a base line data for further investigations on the same topic in future. The study also, would help to identify the reasons of unwanted pregnancies.

Methods and Materials

Study area and study setting: Health institution based cross-sectional study design was used to assess the prevalence of unwanted pregnancy and its associated factors among pregnant women attending Antenatal Care. The study was conducted in Durame town, which is found in Kembata Tembaro Zone South Nation Nationality and Peoples of Ethiopia (SNNPR). Durame is located 269.79 km from Addis Ababa and 112 km from Hawasa (SNNPR regional city). The number of people lives in the town are 24,472 from them 12,173 are men and 12,299 are women. The study period was from April 21, 2018, July 20, 2018.

Study design: Facility based cross sectional study was conducted on pregnant women who visited ANC follow up at Durame Maternal and Child Health center.

Source of population: All pregnant women attending ANC at health center in study area was the source population of the study.

Study population: All pregnant women who attended ANC follow up at Durame Maternal and Child Health Center during the study period.

Inclusion criteria and exclusion criteria: Pregnant women who visited ANC unit during the data collection period and who fulfilled the inclusion criteria were included. Pregnant women who had hearing, speech problem and critically ill were excluded from the study.

Operational Definition

- Unintended pregnancy includes unwanted pregnancy or mistimed pregnancy.
- Unwanted pregnancy is a pregnancy that occurs after a woman has reached her desired family size and did not want any more child or children.
- Mistimed pregnancy is a pregnancy, which has occurred without the wish of the woman at the specific time of occurrence of the pregnancy, but she has a desire to be pregnant and have a child or children sometime in the future.
- Pregnant woman is a woman who is amenorrhea for at least two months and has minor signs of pregnancy as well as the woman

believes to be pregnant or a woman who claims that she was told to be pregnant by health worker on her visit to health institution and believes to be pregnant.

Sample size and sampling technique: Sample size was calculated using population formula based on the following assumption. The prevalence rates of unwanted pregnancy were 39% (from previous study in Jimma Zonal Hospital Ethiopia) [8].

Where = Sample size or the desired sample size)

Standard (1.96)

= Prevalence = 39% = 0.39

= margin of error = 5% = 0.05

Therefore

$n = 366 + \text{NRR}$, $\text{NRR} = n \times 5\% = 366 \times 5/100 = 19$, NRR- non response rate

$n = 366 + 19 = 385$. Therefore, the total sample size is 385.

Sampling procedure: A systematic random sampling method was used after clients review of previous three months in the Health center had been identified, and found to be 729. Hence, every second women ($K = 729/385$) was selected to be included in the study.

Data collection and analysis: Data was collected regarding the dependent and independent variables by pre designed, well-structured, interviewer -administered questionnaires. The questioner was filled by trained data collectors. After all the necessary data collection, the data were analyzed using SPSS 20. Finally, the result was summarized in tables, pie chart and graphs for description of data by frequency and percentage. Multiple binary logistic regression analysis was performed to identify independent predictors of unintended pregnancy. Adjusted Odds Ratio (AOR) with 95% Confidence Interval (C.I) and p-value ≤ 0.05 were used to claim statistical significance.

Ethical Consideration: Ethical approval was obtained from Wolaita Sodo University, College of Health Science, department of Nursing and informed consent was sought from all study participants after receiving adequate explanation about title, objective, purpose, procedure, benefit and risk in participating in this study. Formal letter was taken from Community Based Education office, Durame town administrative office and oral consent was taken from respondents before interview.

Results

Socio demographic characteristics: The response rate of this study was 100%. From 385 study participants, 190(49.4%) of them were in age group of 20-24 years that was followed by 25-29 age group 98(25.5%) and 15-19 age group 32(8.3%) Nearly 135(35.1%) respondents were 7-12th grade, 70(18.2%) were 1-6th grade. Among surveyed respondents, 168(43.6%) were housewives, followed by, 91(23.6%) merchants, and 81(21.0%) were government employees, 34(8.8%) were farmers. Concerning ethnicity of the respondent, majority of them were Kembata Tembaro 289(75.1%) and followed by others like Wolaita, Hadiya, Siltie and Gurage, 56(14.5%). Regarding their religion 252(65.5%) of them were protestant followed by Orthodox Tewahedo 96(24.9%). Majority of respondents were married, that is 358(91.7 %) and lived in urban 268(69.6%) (Table 1).

From all the respondents, 23.4% of them have never used modern contraceptives and the main reason was lack of information (36.2%)

Table 1: Socio demographic characteristics of pregnant women attending ANC at Durame Maternal Health Center, Durame town, Southern Ethiopia, 2018 (N=385).

Variable	Frequency (N)	Percent (%)
Age of the mothers		
15-19	32	8.3
20-24	190	49.4
25-29	98	25.5
30-34	25	6.5
35-39	27	7.0
40-44	12	3.1
45-49	1	0.3
Marital Status		
Single	16	4.2
Married	358	91.7
Divorced	12	3.1
widowed	4	1.0
Educational Status		
Illiterate	60	15.6
Read and write	61	15.8
1-6 th grade	70	18.2
7-12 th grade	135	35.1
12 th and above	59	15.3
Ethnicity		
Oromo	29	7.5
Kembata	289	75.1
Amhara	11	2.9
Others	56	14.5
Religion		
Muslim	35	9.1
Protestant	252	65.5
Orthodox	96	24.9
others	2	0.5
Occupational status		
Housewife	168	43.6
Government employee	81	21.0
Merchant	91	23.6
Farmer	34	8.8
Daily laborer	11	2.9
Decision makers		
Myself	102	26.5
My husband	55	14.3
together	228	59.2
Residence		
Rural	117	30.4
urban	268	69.6

and child preference (32.9%). The figure below is indicating the main barriers for not to use modern contraceptives in the study area (Figure 1).

Knowledge and practice on modern contraceptives

The majority of the studied subjects 363(94.3%) had heard of modern contraceptives. Their numbers for each source of information included: 289(79.6%) from health workers, 35(9.6%) from mass media, 21(5.8%) from relative and 17(4.7%) from written materials. Two hundred ninety five (76.6%) of study subjects had previously used modern contraceptive while 90(23.4%) had never used any methods of modern contraceptives. Injectable was the most frequently used method with 160(54.2%) followed by implants for 68(23%). Frequently reported reasons for non-use of modern contraceptives were: lack of awareness 33(36.2%), wanting to give birth 30 (32.9%) and husband domination 11(12%) (Table 2).

Among a given respondents, 104(26.6%) of them had unwanted pregnancy and 281(73.2%) had wanted pregnancy.

Reproductive history of pregnant women

Sixty two (16.1%) of the study subjects had their first current pregnancy, 323(83.9%) were pregnant before their current pregnancy.

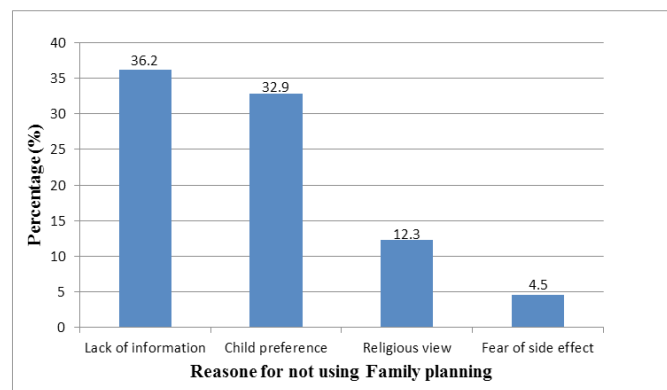


Figure 1: Reasons for not using modern contraceptives among pregnant women following ANC at Durame Maternal Health Center, Durame town, Southern Ethiopia, 2018.

Table 2: Awareness and source of information about modern FP methods among ANC attending women of Durame maternal health center, Durame town, Southern Ethiopia, 2018.

Variable	Frequency (N)	Percent (%)
Ever heard about family planning		
Yes	363	94.3
No	22	5.7
Source of information		
Health workers	289	79.6
Relatives	21	5.8
Mass media	36	9.6
Written materials	17	4.7
Others	1	0.3
Ever used family planning methods		
Yes	295	76.6
No	90	23.4
What type of FP did you use (n=295)		
Pills	31	10.5
Injectable	160	54.2
Implants	68	23
Condoms	15	5.0
Intra uterine	5	1.7
Natural methods	15	5.0

Among surveyed respondents, 103(26.8%) of them had unwanted pregnancies and of these 92(89.3%) had 1-2 unwanted pregnancies. The most frequently reported reasons for failure to avoid unwanted pregnancy were forgetting contraceptive 34(33%) followed by failure of contraceptives 26(25.2%). Other reasons were breast-feeding as contraception 18(17.5%), lack of means to protect 15(14.6%) and husband disapproval 10(9.7%). Of those who reported contraceptive failure 11(20.6%) had used pills and 33(61.1%) were injectable users. From the total respondent, 130(33.8%) of them needs four children for lifetime, followed by five 99(25.7%) and majority of them 337(87.5%) were expected that family planning method can help them to get the number of children they will wants to (Table 3).

Distribution of respondents by status of their current pregnancy

Out of the total participants, 103(26.8%) respondents claimed their current pregnancy was unplanned (Figure 2). 34(33%) claimed that the reason for their unplanned pregnancy was because of forgetting taking contraceptives, which was followed by failure of contraceptive usage 26(25.2%).

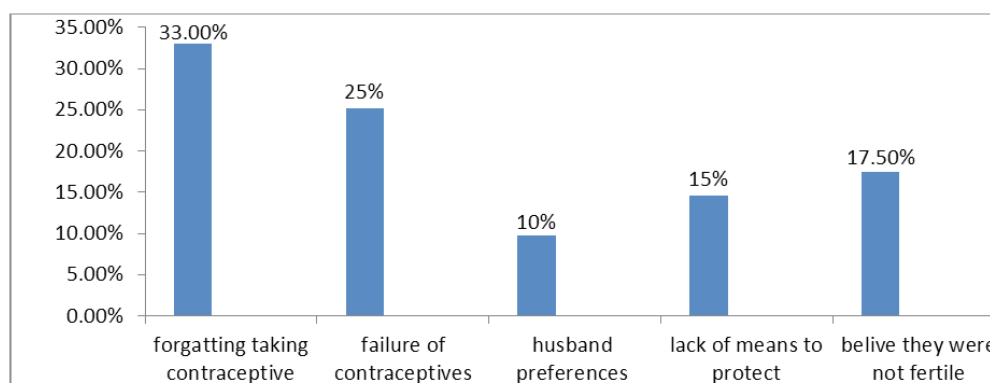


Figure 2: Reasons for failure to avoid unwanted pregnancy among women following ANC at Durame Maternal Health Center, Durame town, Southern Ethiopia, 2018.

Table 3: Reproductive history of pregnant women among ANC attending women of Durame Maternal Health Center, Durame town, Southern Ethiopia, 2018.

Variable	Frequency (N)	Percent (%)
Ever been pregnant before		
Yes	323	83.9
No	62	16.1
Total number of pregnancies		
1-2	128	39.7
3-4	139	43.0
5-6	45	13.9
> 6	11	3.4
Unwanted pregnancy		
Yes	103	26.8
No	282	73.2
Number of unwanted pregnancy		
1-2	92	89.3
3-4	11	10.7
Reason of having unwanted pregnancy		
Lack of means to protect	15	14.6
Forgetting to take contraceptives	34	33.0
Breast feeding	18	17.5
Failure of contraceptive usage	26	25.2
Husband preference	10	9.7
Type of contraceptive method reported as failed		
Pills	11	20.6
Injectable	33	61.1
Implant	3	5.6
Others	7	13
Taking FP methods according to instructions		
Yes	275	71.4
No	41	10.6
Not instructed	69	17.9
Desired number of children		
One	10	2.6
Two	48	12.5
Three	59	15.3
Four	130	33.8
Five	99	25.7
Six or more	39	10.1
Family planning program help you to get desired number of children		
Yes	337	87.5
No	48	12.5

Factors associated with unwanted pregnancy

There were four independent variables in binary logistic regression which had $p < 0.25$; residence, taking family planning by instruction, desired number of children and number of pregnancy. In the multivariate analysis; taking family planning by instruction, desired number of children and number of pregnancy were statistically associated with the outcome variable ($p < 0.05$).

Study participants who were not taking family planning according

to instruction were 3.6 times more likely to have unwanted pregnancy as compared to those who took family planning according to the instruction (AOR = 3.6; 95% CI: 1.59, 8.24). Likewise, participants who had 6 or more desired number of children had 2.8 times more likely to have unintended pregnancy than mothers who desire to have only one child (AOR = 2.8; 95% CI: 1.19, 6.60). Moreover, Mother reporting greater than six total number of pregnancies were nearly 90% less likely to have unintended pregnancy than mothers having one to two total pregnancy (AOR = 0.09; 95% CI: 0.037, 0.229). Similarly,

respondents with 3-4 total number of pregnancies were 90% times less likely to report having unintended pregnancy than women with 1-2 pregnancies (AOR = 0.09, 95% CI: 0.22, 0.08) (Table 4).

Discussion

This study has assessed magnitude and associated factors of unwanted pregnancy among pregnant women attending Antenatal Care at Durame Maternal Health Center, Durame town, SNNPR, South Ethiopia. In this study, the magnitude of unintended pregnancy was found to be 27.1%. This finding is similar to study conducted Gelemeso referral hospital, North West Ethiopia (26.0 %) [9] and Felegehiwot General Hospital, East Ethiopia (27.1%) [10].

On the other hand, the magnitude of unintended pregnancy in this study was lower than the study done in Addis Ababa, Ethiopia (36.4%) and Duguna Fango district, South Ethiopia, 36.6%. This reduction in this study could be attributed to the awareness due to the time gap between studies and availability of services in the current study. And also this finding is lower than the other studies that were conducted in Bale Zone, Oromia Region (37.5%). This might be due to the increased availability and accessibility of maternal health services.

The most frequently reported reasons for failure to avoid unwanted pregnancy were forgetting contraceptives 34(33%) followed by Failure of contraceptive usage 26(25.2%). Other reasons were breast-feeding as contraception 18(17.5%), lack of means to protect 15(14.6%) and husband disapproval 10(9.7%).

The total number of pregnancies that the women experienced was significantly associated with unintended pregnancy in which; women with 6 or more total pregnancies had nearly 90% less likely to have unintended pregnancy as compared to women with one to two total number of pregnancies [AOR = 0.09, 95% CI: 0.03, 0.23]. Similarly, women with 3-4 pregnancies were 90% less likely to have unintended pregnancy than women with 1-2 pregnancies [AOR=0.09, 95% CI: 0.22, 0.08]. Our study finding was in contrast with another study conducted at Hosanna in which, mothers with five or more pregnancies had a significantly increased likelihood of the pregnancy being unplanned.

Those respondents who desired to have three and six or more children were 31 and 3 times more likely to report unintended pregnancy compared to those who desired to have one number of child

(AOR: 31.37; 95% CI: 4.18, 235.5) and (AOR: 2.8; 95% CI: 1.19, 6.60) respectively. Our study finding was in contrast with the study conducted in Jimma Town, Southwest Ethiopia in which, the lower number of children desired, the higher the risk of unintended pregnancy [8].

Husband disapproval was reported (9.7%) which is much lower than a study conducted in Hosanna (13.7%). The observed difference might be due to men's desire for more children than women in both areas is different because of different socio-cultural contexts. Method failure in the current study was lower than that of Hosanna (25.2% vs. 31.3%). On the other hand, lack of means of contraceptive in the present study was lower than the study conducted at Hosanna [14.6% vs. 21.1%]. This may be due to a timely increase in awareness and utilization of modern contraceptives.

Conclusion and Recommendation

Findings of this study indicate unwanted pregnancy is one of the prevalent reproductive health problems in the study area. Practiced FP methods, taking FP by instruction, and desired number of children were among significantly associated factors associated with unwanted pregnancy. Common reasons given by the respondent for not avoiding unwanted pregnancy were lack of awareness, difficulty to get the method, husband disapproval and method failure.

Declarations

Ethics approval and consent to participant

Permission was obtained from Wolaita Sodo University, College of Health Sciences, and Department of Nursing. In addition, letter of permission was secured from Durama Health Bureau and Hospitals Management committee. Confidentiality of information was maintained.

Consent for publication

Not applicable.

Availability of data and materials

The data that support the findings of this study are available but some restrictions may apply to the availability of these data as there are some sensitive issues. However, data are available from the

Table 4: Bivariate and Multivariate analysis showing an association between unwanted pregnancy and maternal factors among ANC attending women of Durame Maternal Health Center, Durame town, Southern Ethiopia, 2018.

Variable	Unintended pregnancy		COR (95% CI)	AOR (95% CI)
	Yes (%)	No (%)		
Residence				
Urban	61 (59.2)	207 (73.4)	1	1
Rural	42 (40.8)	75 (26.6)	1.90(1.18, 3.05)	1.59(0.89, 2.85)
Total number of pregnancies				
1-2	21 (20.4)	106 (37.6)	1	1
3-4	51 (49.5)	88 (31.2)	0.01(0.02,0.11)	0.09(0.01,0.08)
5-6	24 (23.3)	21 (7.4)	1.05(0.28,4.00)	0.91(0.22,3.77)
> 6	6 (5.8)	5 (1.8)	0.17(0.08,0.37)	0.09(0.04,0.23)
Taking FP by instruction				
Yes	74 (71.8)	201 (71.3)	1	1
No	20 (19.4)	21 (7.4)	2.45(1.16,5.19)	3.62(1.59,8.24)
Not instructed	9 (8.7)	60 (21.3)	6.35(2.50,16.10)	0.45(0.18,1.09)
Desired number of pregnancy				
1	8 (7.8)	2 (0.7)	1	1
2	18 (17.5)	30 (10.6)	0.59(0.28,1.24)	1.17(0.55,2.49)
3	20 (19.4)	39 (13.8)	0.30(0.14,0.64)	31.37(4.18,235.5)
4	20 (19.4)	110 (39.0)	6.67(1.27,34.9)	0.44(0.18,1.14)
5	26 (25.2)	73 (25.9)	0.65(0.26,1.67)	1.70(0.76,3.83)
≥ 6	11 (10.7)	28 (9.9)	0.86(0.39,1.90)	2.8(1.19,6.60)

corresponding authors upon reasonable request.

Competing interests

The authors declare that they have no competing interests.

Funding

Wolaita Sodo University

Authors' contributions

LD was involved in the conception, design, analysis, interpretation, report, manuscript writing, the design, analysis, interpretation and report writing. KA was involved design, analysis and interpretation of the data. Both authors read and approved the final manuscript.

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