Magnitude and factors influencing unintended pregnancy among pregnant women attending antenatal care at Felege Hiwot referral hospital, Northwest Ethiopia: A cross-sectional study

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Abstract: Background: Unintended pregnancy is important public health concern both in the developing and developed world that increases maternal morbidity and mortality. The proportion of unintended pregnancies is increasing in Ethiopia; yet the determinants of unwanted and mistimed pregnancy has not been identified clearly. The objectives of this study were to determine magnitude and identify factors associated with unintended pregnancy among currently pregnant women visiting antenatal care clinic, Bahir Dar, Ethiopia. Methods: A cross sectional study was conducted on 454 women attending antenatal care clinic at Felege Hiwot Referral Hospital from June to July 2012. Simple random sampling technique was used to select study participants. Data were collected by trained data collectors using pretested structured questionnaires. Data were checked for completeness, consistency, coded and entered into EPI Info (version 3.5.2) and transferred to SPSS version 16 for analysis. Bivariate and multivariate logistic regression analysis was computed to test the strength of association and level of significance. P-value <0.05 was considered as statistical significant. Results: The magnitude of unintended pregnancy was 26.0 % (13.7% mistimed and 12.3% were unwanted). Major reasons mentioned for failure to avoid unintended pregnancy were lack of knowledge, disapproval by husband, and method failure. The study revealed that illiterate women were three times more likely to experience unintended pregnancy compared to those women educated secondary and above (AOR= 3.10, CI: 1.66- 5.78). Likewise, those women who had family size of 3-5 were twice more likely at risk to have unintended pregnancy compared to those who had family size of 1-2 (AOR= 2.19; CI: 1.32- 3.61) and those women who had family size of greater than 5 were nine folds at risk to have unintended pregnancy compared to those who had family size of 1-2 (AOR=8.90; CI: 4.37-18.13). Conclusion: The finding of this study showed that a considerable proportion of women had unintended pregnancy (26%). The study showed that many factors were interwoven to affect the occurrence of the unintended pregnancy. Differences in educational status of women and family size, previous history of unintended pregnancy and male partner awareness on contraceptive utilization were found to be significantly significant with unintended pregnancy. Health promotion messages are needed to focus to improve the knowledge of women about contraceptives as a primary prevention of unplanned pregnancies.

Keywords: Magnitude, Factors, Unintended Pregnancy, Pregnant Women, Antenatal Care, Ethiopia

1. Background

Unintended pregnancies are pregnancies that are reported to have been either unwanted (i.e., they occurred when no children, or no more children, were desired) or mistimed (i.e., they occurred earlier than desired) [1]. Unintended pregnancy can result from not using contraceptives, contraceptive failure and less commonly, from rape [2].

Unintended pregnancy is a worldwide problem that affects women, their families and societies at large. It is an important public health concern in both the developing and developed world because of its association with adverse social and health outcomes, for both mothers and children. Unintended pregnancies particularly among women in developing countries are linked to elevated maternal morbidity and mortality [1, 2, 3].

It has been estimated that every day, 1,600 women and more than 10,000 newborns die from preventable complications during pregnancy and childbirth in which a large proportion (~50%) of such pregnancies are unplanned and about 25% are definitely unwanted. Almost 99% of these maternal and 90% of neonatal deaths occur in the developing countries. The lifetime risk of dying of pregnancy-related conditions is 1 in 60 in developing countries. In Sub-Saharan Africa, maternal mortality occurs in 1 in 160 pregnancies [3, 4].

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 [1]. Low contraception use has been linked to poor access to reproductive health services, gender norms and sexual abuse or coercion [5].

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, 7].

According to report of the Ethiopian Demographic and Health Survey 2011, 25% of currently married women had an unmet need for family planning; 9% of births were not wanted and 16% of births were mistimed [8].

Maternal mortality in Ethiopia is one of the highest in the world. Few surveys conducted on issues related to unwanted pregnancy suggested that unwanted pregnancy was among the main causes of maternal mortality in the country [8, 9, 10].

It is a universally accepted fact that unintended pregnancy and births could have negative consequences for women, children, families and societies at large. It is one of the major factors for increased maternal mortality in Ethiopia, perhaps in Amhara region, Northwest Ethiopia as well. It is also imperative that a persistent study must be conducted to elucidate some of the predictors that determine unintended pregnancy in order to reduce maternal morbidity and mortality related to unintended pregnancy to assist in maternal mortality reduction program of the millennium development goal. Thus, this study is believed to establish an insight about current unintended pregnancy rate and its determinants that may herald stakeholders in designing strategies to reduce maternal mortality.

In Ethiopia, few studies were conducted but no study has been found in the target area. Therefore, this study was aimed to assess the magnitude of unintended pregnancy and associated factors so as to initiate intervention by the concerned authorities.

2. Participants and Methods

2.1. Study Area

The study was conducted in Felege Hiwot Referral Hospital, Bahir Dar City. Bahir Dar is the capital of the Amhara Regional state, Ethiopia. The city is located approximately 565 km Northwest of Addis Ababa, capital city of Ethiopia. The city is divided in to nine administrative kebeles, the smallest administrative units in Ethiopia. The number of females in reproductive age are expected to be 64,803 (24% of the total population).Total fertility rate (TFR) was estimated to be 2.6 children per woman of reproductive age, while the overall national figure was 4.8 children per woman of reproductive age group [7].

2.2. Study Design and Period

Institution based cross-sectional study was conducted from June to July 2012 at Felege Hiwot Referral Hospital, Bahir Dar City, Northwest Ethiopia.

2.3. Study Population

Pregnant women who were registered and attended ANC in Felege Hiwot Hospital during the study period were recruited in the study. Pregnant women that were registered and interviewed once but who came for the second or subsequent visits and seriously ill pregnant women were excluded from the study.

2.4. Variables

While unintended pregnancy was the dependent variable, Socio demographic characteristics such as age, duration in marriage, residence, educational status; knowledge and practice about contraceptive; spousal communication; exposure to mass media, and reproductive history were the covariates.

2.5. Sample Size Determination and Sampling Procedures

The sample size was determined based on the result of proportion of unintended pregnancy in Amhara Region obtained from EDHS 2011, which was 22.1% [28]. The following assumptions were used: level of confidence 95%, a 4% marginal error. Based on these assumptions and taking 10% non response rate, the sample size calculated was 454 using single proportion formula (N = $(z\alpha/2)^2$ p(1-p) /d2).

Simple random sampling technique was used to select the study participants using ANC registration book that contained list of pregnant women who visited prenatal clinic as a sampling frame.

2.6. Data Collection

Structured questionnaires which comprised of two parts were the study instruments. The first part contained socio-demographic and economic factors and the second part was

on reproductive history of pregnant women. The questionnaire was initially prepared in English and was translated in to Amharic (local language) and again re-translated back to English to check for any inconsistencies or distortions in the meaning of words and concepts. Face to face interview was the technique of data collection and female data collectors were recruited to get frank response of respondents by taking into consideration of women's preference in the community.

2.7. Data Quality Assurance

To assure data quality the instrument was retranslated to local language. The recruited data collectors and their supervisors were trained for one day. A questionnaire was pre-tested in Han health center (one of the health centers in the city administration) on 25 women and modifications were done accordingly. Close supervision was undertaken during data collection and every questionnaire was crosschecked daily by the supervisor and the principal investigator and Problems faced were discussed overnight.

2.8. Data Management and Analysis

All the collected data were coded, checked for completeness and consistency. The data were entered into EPI Info version 3.5.2 and transferred to SPSS version 16.0 statistical soft ware for its analysis.

Descriptive and bivariate analyses were computed to see the frequency distribution and to test whether there is association between dependent variable and selected independent variables respectively. Factors associated with unintended pregnancy at bivariate analysis were identified and the variables with p-value of 0.20 and less were fit to logistic model for multivariable analysis. P-value less than 0.05 at 95% confidence interval was considered as statistically significant.

2.9. Ethical Consideration

Ethical clearance was obtained from the ethics review committee of Addis continental institute of public health, (ACIPH) and letter of permission was obtained from the administrators of Felege Hiwot Referral Hospital. All the study participants were informed about the purpose of the study, their right to refuse and assurance of confidentiality. Oral informed verbal consent was obtained from every respondent. Strict confidentiality was also maintained through anonymous recording and coding of questionnaire.

3. Results

3.1. Socio Demographic Characteristics

Four hundred fifty four pregnant women in reproductive age group were participated and interviewed in the study. Majority of the participants, 360 (79.3%), were urban residents. The age of respondents ranged from 15-48 years with the mean (± SD) of 25.8(± 5.3) years, and half of respondents 230(50.7%) were in the age group of 25-34 years. About 250(55.1%) of the respondents had three or more family members and the median of family size was 3 members (inter quartile range of 2, 3, 4 family members for 25, 50, 75 percentiles respectively).The majority of respondents 445 (98.0%) were Amhara in Ethnicity and 402 (88.5%) were Orthodox Christians by religion. Concerning duration in marriage, a little less than half, 212 (46.7%) were lived together with their partners for 0-5 years and only 31(6.8%) of them were lived together beyond two decades. Regarding the occupational status, majority of the study participants (43.8%) were house wives and only (5.1%) of the respondents were students. About 179(39.4) of them had monthly income less than 1000.00 Ethiopian birr (Table 1).

Regarding the educational status of the study participants (27.5%) were illiterate (unable to read and write), and a quarter, 114 (25.1%), of women had completed their higher education (figure 1).

Table 1. *Socio demographic characteristic of pregnant women attending ANC clinic in Felege Hiwot Referral Hospital, Bahir Dar; July, 2012 (n=454)*

| Socio demographic characteristics	Number	percent
Address		
Urban	360	79.3
Rural	94	20.7
Age		
15-24 years	187	41.2
25-34 years	230	50.7
≥35years	37	8.1
Family size		
1-2	204	44.9
3-5	201	44.3
More than 5	49	10.8
Ethnicity		
Amhara	445	98.0
Others	9	2.0
Religion		
Orthodox	402	88.5
Muslim	45	9.9
Protestant	7	1.6
Duration in marriage		
0-5 years	212	46.7
6-10 years	132	29.1
11-20 years	79	17.4
above 20 years	31	6.8
Occupation		
House wife	199	43.8
Employee	199	43.8
Students	23	5.1
others	33	7.3
Monthly income		
Up to 500 birr	50	11.0
501-1000 birr	129	28.4
1001-2000	131	28.9
2001-3000	69	15.2
> 3000	75	16.5
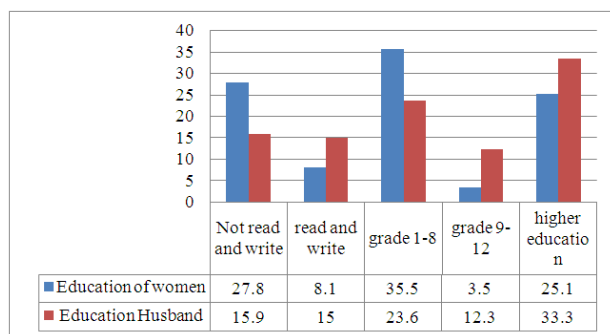
Figure 1. Educational level of women attending ANC and their partners at Felege Hiwot Referral Hospital. July, 2012.

3.2. Reproductive History of Pregnant Women

Of the total interviewed women, 432(95.2%) replied that they knew at least one modern contraceptive method. All the respondents, 454 (100%) knew pills and higher proportion, 426 (93.6%) of them also mentioned injectable contraceptives. On the contrary, only 13(2.9%) of the participants were aware of vasectomy as family planning technique. Nine in ten, 404 (89.0%), of the respondents also reported that they had ever used contraception sometimes in the past.

Regarding the advantage of contraceptives, majority (87.7%) of the women knew function of contraceptives on preventing unwanted pregnancy. However, less than half (44.5%) of them knew about post pills and only 1.5% of the respondents were familiar with the additional advantage of contraceptives to correct irregular menstruation.

Women were asked about the total number of pregnancies and live children they had. Accordingly, half (50.9%) of study participants had 2-4 children and in 41.6% of the women their most recent pregnancies at a time was their first pregnancy (figure 2).
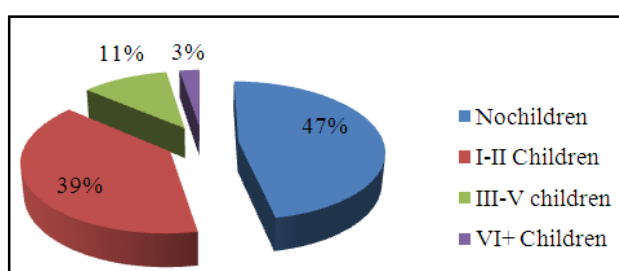

Figure 2. Number of live children among ANC attendees at FHRH, Bahir Dar, July 2012.

Regarding the intentions of women on the current pregnancies 118 (26.0 %) of pregnant women reported that their recent pregnancies were unintended. Unintended pregnancy was further split into mistimed and unwanted pregnancies. Of these, 62(13.7%) of women wanted a child if it had been after two years (those wanting to space child birth-mistimed) and 56(12.3%) of women reported that they did not want their recent pregnancies at all (unwanted).

Participant women were also asked about their previous

history of unintended pregnancy and 65(29.5%) of them replied that they had experienced unintended pregnancies other than the recent pregnancy. From those who had unplanned pregnancy, 19 (29.2%) of them mentioned that they had experienced unplanned pregnancy more than once in their life time. Majority (78.5%) of women who had unplanned pregnancy continued the pregnancy and gave birth. On the other hand, only 2 (3.1%) interrupted the pregnancy and 12(18.5%) tried to interrupt their pregnancies though they failed.

Of the respondents who had previous history of unintended pregnancy, the most frequent reply given as the reasons for failure to avoid such pregnancies were contraceptive method failure, 20 (30.8%), and Partner disapproval, 12 (18.5%). Among those women who became pregnant while using contraceptive (i.e. due to contraceptive method failure) while 13(65%) of them used according to recommendations, the rest one third did not take the contraceptives given as per the direction given from their health workers (Figure 3).
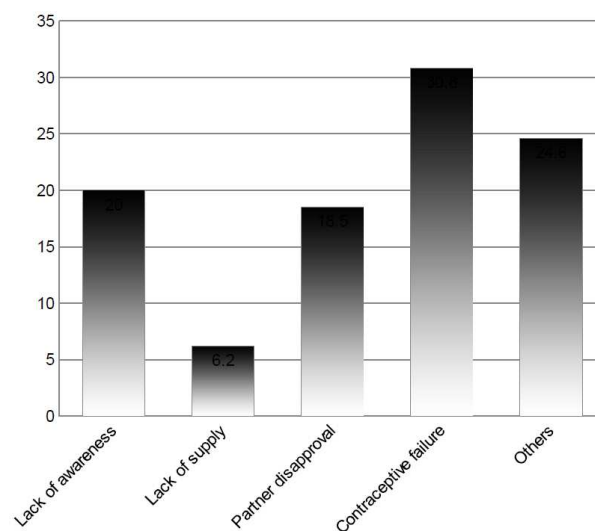
Figure 3. Reasons for unintended pregnancy among women attending ANC clinic in FHRH, Bahir Dar, Ethiopia, July 2012

The finding of this study on the relation between intention of current pregnancy and the number of children revealed that 30 (14.0%) of the pregnancies for women who had not had children were unintended, among whom, 22(10.3%) were mistimed and 8(3.7%) were unwanted. Further splitting of this proportion in to the number of live children showed that 33 (18.7%) of the pregnancies were mistimed and 16(9.0%) were unwanted for women who had 1-2 children. On the other hand, for women who had 3-4 children 58.8% and for those women who had 5 or more children 75% of their pregnancies were unintended respectively.

Despite increased trend of unintended pregnancy with number of live children, mistimed and unwanted pregnancies vary in each age category. For women who had no children and for those who had one to two children their mistimed pregnancies were higher than unwanted pregnancies (10.3% vs. 3.7% and 18.7% vs. 9.0%

respectively). On the contrary as the number of children women had increased to 3-4 and 5 and above the proportion of unwanted pregnancies were relatively greater than mistimed pregnancies (47.1% vs. 2.9%, and 66.7% vs. 8.3%) respectively (Table 2).

Table 2. Intention to current pregnancy versus number of children among pregnant women attending ANC clinic in FHRH, July, 2012(n=454)

No of children	Intention to the current pregnancy			
	Wanted pregnancy	Unintended pregnancy		
		Mistimed	unwanted	Total Unintended Pregnancy
No children	183(86.0%)	22(10.3%)	8(3.7 %%)	30(14.0%)
1-2 children	129 (72.5%)	33(18.7%)	16 (9.0%)	49 (27.5%)
3-4 children	21 (41.2%)	6(2.9%)	24 (47.1%)	30 (58.8%)
Five and above	3(25.0%)	1(8.3%)	8(66.7%)	9(75.0%)

3.3. Part III. Determinants of Unintended Pregnancy

According to this study factors that are associated with unintended pregnancy on bivariate analysis at the level of P value of 0.2 and less were fit in to multivariate logistic regression model. Accordingly, variables such as age of women, education level of women, education level of partner, family size, duration in marriage, wealth status, family planning awareness, the number of pregnancies, live children and previous history of unintended pregnancy were exported in to multivariate logistic regression analysis model.

Using backward stepwise elimination, it was found that educational level of women and family size were remained in the condensed model. The multivariate analysis result of this study declared that educational level of women, family size, partner's awareness on women's utilization of contraceptive before the recent pregnancy and previous history of unintended pregnancy were found to be statistically significant predictors of unintended pregnancy.

Illiterate women (unable to read and write) were three times more likely to experience unintended pregnancy compared to those women educated secondary and above (AOR= 3.10, CI: 1.66- 5.78). Likewise, those women who had family size of 3-5 were twice more likely at risk to have

unintended pregnancy compared to those who had family size of 1-2 (AOR= 2.19; CI: 1.32- 3.61) and those women who had family size of greater than 5 were nine folds at risk to have unintended pregnancy compared to those who had family size of 1-2 (AOR=8.90; CI: 4.37-18.13).

Previous history of unintended pregnancy showed its association with the current unintended pregnancy. The strongest association was among women who reported previous history of unintended pregnancy (AOR=10.6; CI: 4.76-23.41) in relative to women with no history of unintended pregnancy. Similarly, awareness of male partners on the utilization of contraceptives of their wives revealed a statistical significant association with unintended pregnancy. Women whose husbands knew contraceptive utilization were almost six times less likely to have unintended pregnancy compared to their counterparts of women whose partners had no awareness on their contraceptive utilization (AOR= 5.96; CI: 1.64- 21.67). According to this study, differences in age of the respondents and intention to current pregnancy, monthly income, duration in marriage, number of children, and number of pregnancy were not associated with unintended pregnancy in the multivariate analysis (Table 3).

Table 3. The association between selected socio- economic and demographic variables and intention to recent pregnancies among women attending ANC clinic in FHRH, Bahir Dar, July, 2012 (n=454)

Variables	Intention to current pregnancy		OR (95%CI)	
	Unintended	wanted	COR (CI)	AOR(CI)
Age				
15-24 years	35(18.7%)	152 (81.3%)	1.00	1.00
25-34 years	62(27.0%)	168 (73.0%)	1.60(1.003,2.56)	1.10(0.611,1.990)
35 and above	18(48.6%)	19(51.4%)	4.11(1.96, 8.64)	1.01(0.36,2.85)
Monthly income (in ETB)				
Up to 1000	52(29.1%)	127(70.9%)	2.38(1.16,4.88)	2.20(0.89,5.45)
1001-2000	39(29.8%)	92(70.2%)	2.47(1.18,8.18)	1.91(0.80,4.57)
2001-3000	13(18.8%)	56(81.2%)	1.35(0.56, 3.25)	1.35(0.51,3.53)
> 3000	11(14.7%)	64(85.3%)	1.00	1.00
Family size				
1-2	28(13.7%)	176(86.3%)	1.00	1.00
3-5	56(27.9%)	145(72.1%)	2.43(1.47,4.02)	2.19(1.32,3.61)*
>5	31(63.31%)	45(36.7%)	10.8(5.35, 21.90)	8.90(4.37,18.13)**
Duration in marriage				
0-5years	37(17.5%)	175(82.5%)	1.00	1.00
6-10 years	31(23.5%)	101(76.5%)	1.45(0.85,2.48)	0.97(0.53,1.78)
11-20 years	30(38.0%)	49(62.0%)	2.90(1.63, 5.15)	1.07(0.53,2.20)

Variables	Intention to current pregnancy		OR (95%CI)	
	Unintended	wanted	COR (CI)	AOR(CI)
Above 20 years	17(54.8%)	14(45.2%)	5.74(2.60,12.67)	2.73(1.09,6.87)
Educational status of women				
Illiterate (unable to read and write)	48(38.1%)	78 (61.9%)	3.60(1.96, 6.58)	3.10(1.66,5.78)**
Primary				
Secondary	48(24.2%)	150(75.8%)	1.87(1.014,3.36)	1.74(0.96,3.17)
&above	19(14.6%)	111(85.4%)	1.00	1.00
Partners educational status				
Not read and write	26(36.1%)	46(63.9%)	2.51(1.39,4.56)	1.09(0.47,2.53)
Primary education	51(29.1%)	124(70.9%)	1.83(1.13,2.96)	0.88(0.46,1.67)
Secondary and above	38(18.4%)	169(81.6%)	1.00	1.00
F/P awareness				
Yes	105(24.3%)	327(75.7%)	1.00	1.00
No	10(45.5%)	12(54.5%)	2.6(1.09, 6.18)	3.28(0.15,70.43)
Partner knew utilization of F/P of women				
Yes	68(20.9%)	258(79.1%)	1.00	1.00
No	10(41.7)	14(58.3%)	2.7(1.15,6.37)	5.96(1.64,21.67)*
Number of Px				
First px	26(13.8%)	163(86.2%)	1.00	1.00
II-IV	67(29.0%)	164(71.0%)	2.56(1.55, 4.23)	1.11(0.19,6.40)
Five and above	25(73.5%)	9(26.5%)	17.42(7.32,41.45)	6.37(0.83,49.25)
Number of children				
No children	30(14.0%)	188(86.0%)	1.00	1.00
1-2children	49(27.7%)	128(72.3%)	2.35(1.41,3.90)	2.86(0.28, 29.40)
3-4 children	28(54.9%)	23(45.1%)	7.47(3.81,14.64)	2.84(0.22,36.41)
Five and above	8(66.7%)	4(33.3%)	12.27(3.48,42.28)	3.15(0.10, 97.48)
Previous hx of unintended pregnancy				
Yes	42(64.6%)	23(35.4)	8.75(4.58, 16.72)	10.6(4.76,23.41)*
No	29(17.3%)	139(82.7)	1.00	1.00

* Statistically significant at P< 0.05 & ** statistically significant at P<0.001; OR= Odds Ratio, AOR =Adjusted Odds Ratio; COR=Crude Odds Ratio; ETB=Ethiopian Birr; hx=history; px= pregnancy history

4. Discussions

Many women and couples in Ethiopia do not have the knowledge, tools or assistance they need to maintain their reproductive health and have the number of children they desire. Consequently, many women have more children than they want or can care for [7].

In this study, attempt was made to examine the magnitude and predictors of unintended pregnancies based on a sample of 454 women attending prenatal care at Felege Hiwot Referral Hospital. The finding of this study showed that a little more than a quarter, 26%, of women reported their most recent pregnancy as unintended and among all unintended pregnancies, 13.7% of women wanted a child if it had been after two years and 12.3% reported that they did not want their recent pregnancies at all. This finding is in line with the Ethiopian Demographic and Health Survey which reported that one fourth of the pregnancies were unplanned [8]which makes the results of this study comparable to the national average. It is also similar to the results from a study in Kersa, East Ethiopia [13]. However, Being the study done in Bahir Dar, Capital of Amhara region and so having physical access to health services, the prevalence of unintended pregnancy is relatively high.

On the other hand, the prevalence of unintended pregnancy in this study was lower than the study done in Harar, East Ethiopia (36.3%) and Damote Gale district, South Ethiopia, 42.4% [14,18]. Similarly, the finding of the current study was lower than the prevalence reported in Oreland district, Ecuador, 36.3% and Nepal, 41.2% [12, 15]. This reduction in this study could be attributed to the progress in the awareness due to the time gap between studies and availability of services in the current study as it was done in the capital of Amhara Region and other factors related to the study areas.

Inadequate knowledge on avoiding unwanted pregnancy, husband disapproval, and method failure were the most frequent reason mentioned by the participants for failure to avoid unintended pregnancies in this study. Majority of the respondents, 95.2%, were aware of contraceptives. However, this high knowledge of contraceptives appears to contradict with the reported low awareness, 44.5%, on the advantage of post pills and the inadequate knowledge on avoiding unwanted pregnancy as reason cited for the recent unintended pregnancy in 20% of the respondents.

In every society husbands have pivotal role in the decision of family planning utilization .In this study partner disapproval was the risk factor for unintended pregnancy in

18.5% of study participants 'which calls for initiating activities on male involvement in avoiding unwanted pregnancies. This was higher than the study done in Uganda [23] in which 13% of pregnancies were unintended due to husband opposition of family planning utilization. The difference could be attributed to cultural and religious differences that are restrictive for Ethiopian women and permissive for Uganda's women in terms of their autonomy in decision making or define their health needs including in the determination of family sizes.

Method failure is a serious problem with great implications both for women as well as for the healthcare facilities providing family planning services: the individual woman could face unwanted pregnancy and its consequences and the system would lose confidence of users and potential users. About 31% of unintended pregnancies in our study were due to method failure. Although the causes of method failure may need to be investigated in more details, poor counseling during service delivery might be a likely contributing factor.

Educational status of women was one of the predictors of unintended pregnancy in the study area. Illiterate women were three times more likely to experience unintended pregnancy compared to the reference group. This implied that education as having the pervasive impacts on married women's pregnancy intention since it empowers women with knowledge and practice of contraceptive methods leading to reduction of the chance for discontinuity of contraceptive utilization.

It was also noted that family size was predictor for unintended pregnancy in this study. Those women who had family size of 3-5 and greater than 5 were respectively twice, and nine folds, at risk of having unintended pregnancy than the reference groups. This might be an evident that the toll of unmet need for family planning was high due to the fact that these women could already have attained the number of families they desired.

Even though age failed to show significant association with unintended pregnancy in the multivariate logistic regression, the proportion of woman experiencing unintended pregnancy was higher among older women compared to those in the young age groups. The descriptive result showed that proportion of unintended pregnancy increased from 18.7% among the age groups of 15-25 years and got pick among the age group of 35 and above with the proportion of 48.6%. The unadjusted OR also showed that unintended pregnancy among the age groups of 25-34 and 35+ were nearly twice and four folds more likely to be higher than the reference categories of 15-24 years of age. This finding is in line with the Ethiopian DHS 2011[8] and the study done in South Ethiopia [18].This might be explained by the fact that in most instances women at this age have sufficient number of children and they were fatigued due to repeated pregnancies occurred at younger age.

5. Strength and Weakness

5.1. Strength

The study tried to investigate common but unforeseen problem of maternal morbidity and mortality in the area. It also considered cultural issues through involving the same gender as data collectors as it is common in the community to openly discuss reproductive matters with other women than men.

5.2. Weakness

Interviewer administrated questionnaire was used which affect the right to respond freely; still social desirability bias might not be eliminated. The sensitivity of the reproductive issue and expose rationalization (that is reporting a pregnancy that was at first unwanted, later reported as wanted if the pregnancy has continued) of unintended birth might result in under reporting.

6. Conclusions

The findings of this study revealed that large proportion of women had unintended pregnancy. The study concludes that no single factor affected unintended pregnancy, rather many factor were interwoven to affect the occurrence of the event. The findings of this study showed that education status of women, family size, and partner awareness on utilization of family planning of their wives, previous history of unintended pregnancy were significant predictors of the recent unintended pregnancy in Felege Hiwot Referral Hospital, North west Ethiopia.

Method failure, more particularly pills, low awareness on contraceptive utilization, and partner disapproval were among the main reasons mentioned by study participants for unintended pregnancy. On the other hand, only few women cited that unintended pregnancies were resulted from low access to family planning techniques. This implies that, efforts to expand access to family planning methods without regard for the provision of effective BCC and quality care might have little benefit in terms of achieving the major objectives of avoiding unintended pregnancy. Based on the key findings discussed above, programs should design to ensure sustainable behavioral changes among community members, strengthening the follow up system on FP workers and beneficiaries, design a strategy to improve inter-spousal communication through peer or informal education and community level orientation. Policy makers, health professionals and health authorities should give due attention to the improvement in the provision of effective IEC, counseling and quality of care. It is very important to have strategies to increase men's participation with their partners in using contraception. Furthermore, undertake further in depth and large-scale study in order to explore underlying causes and design specific interventions.

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