Medical Science

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Research Paper

Prevalence And Associated Factors of Unintended Pregnancy In Dessie City Administration, East Amhara, Ethiopia – Dec., 2014

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Back ground: Unintended pregnancy is mistimed, unplanned or unwanted at the time of conception. It is a public health problem which affects maternal and child health. UN report estimated that 80 million unintended pregnancies occur annually worldwide, resulting in 42 million induced abortions and 34 million unintended births. In Ethiopia, about 1/3rd are unintended

Objective: To determine prevalence and associated factors of unintended pregnancy among pregnant women of reproductive age group in Dessie city administration.

Methods: Community based cross sectional study. Systematic random sampling for 340 samples, with proportional allocation.

Results: 21.5% reported unintended pregnancy and associated with gravidity, Knowledge of emergency contraception, method side effect and husband support for using contraceptive methods.

Conclusion: Increasing gravidity, knowledge of emergency contraception, side effects and husband disagreement for contraceptive use were significantly associated factors. Health education and proper counseling should be provided at health facility and community level along with service provision.

KEYWORDS

Unintended pregnancy, Maternal death

Introduction

Statement of the problem

Unintended pregnancy is pregnancy that is mistimed, unplanned or unwanted at the time of conception. It is a public health problem which affects maternal and child health. Maternal death, abortion, low birth weight baby, preterm birth and high infant mortality are attributed to unintended pregnancy [1].

United Nations report estimated that 80 million unintended pregnancies occur annually worldwide, resulting in 42 million induced abortions and 34 million unintended births. Unintended pregnancies have serious consequences for the health, economic and social well-being of women and families, particularly in developing countries where maternal mortality is high and abortions are often unsafe. According to World Health Organization (WHO) more than 358,000 women die of pregnancy-related causes every year [2].

About half of unintended pregnancies in developing countries result in abortion, and unsafe abortion is a leading cause of maternal death. An estimated 21.6 million unsafe abortions took place worldwide in 2008, almost all 21.2 million in developing countries. Complication of unsafe abortion accounts for about 13% of maternal deaths worldwide [3, 4].

Unintended Pregnancy is a particular concern in adolescents Worldwide. Around the world, about 16 million girls and women aged 15 to 19 years give birth each year and most of these pregnancies are unintended [5].

The highest rate of unintended pregnancy occurs in Sub-Saharan Africa, where about 86 unintended pregnancies occur for every 1000 women of reproductive age [6].

The World Health Organization (WHO) estimates that every year, nearly 5.5 million African women have an unsafe abortion. As many as 36,000 of these women die from the procedure, while millions more experience short- or long-term illness and disability.

In Ethiopia, Low levels of contraceptive use lead to high levels of unintended pregnancy, the root cause of abortion. In 2008, 101 unintended pregnancies occurred per 1,000 women aged 15–44, and 42% of all pregnancies were unintended [7].

Justification

Maternal mortality in Ethiopia is one of the highest in the world. The few surveys conducted on issues related to abortion and unwanted pregnancy suggests that the magnitude of unwanted pregnancy and unsafe abortion are among the main causes of maternal mortality in Ethiopia [19]. Even though there are some researches conducted in southern part of Ethiopia (Kersa, Gangi, Gilgel gibe, Hossana, Harar and Damot gale), the available literatures do not provide sufficient information about the prevalence and factors of unintended pregnancy in the country Ethiopia and most of this studies were addressing only married pregnant women. In addition, as to my knowledge, I could not access similar study conducted in the study area Dessie town.

Therefore, this study is designed to address all pregnant women (both married and unmarried) in assessing the magnitude of unintended pregnancy and associated factors in the study area Dessie town.

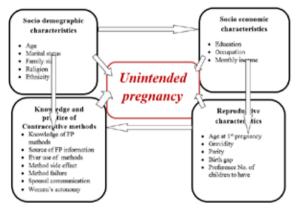
Significance

If the Millennium Development Goals of reducing child mortality and improving maternal health are to be achieved, the incidence of unintended pregnancy and its consequences must

be dramatically reduced. Period estimates of the incidence of unintended pregnancy can be used to monitor progress toward that goal. Information concerning unintended pregnancy levels can also point to gaps in access to and use of contraceptives [20, 21].

The level of unintended pregnancy can also serve as an indicator of the state of women's reproductive health, and of the degree of autonomy women have in determining whether and when to bear children [22]. It is important to identify factors associated with unintended pregnancy, to enable policy-makers, government & NGO partners and program planners to design intervention actions specifically for the women who are most likely to experience this problem.

Figure 1: Conceptual Frame Work



General objective

To determine prevalence of unintended pregnancy and associated factors among pregnant women of reproductive age group in Dessie city administration.

Specific objectives

- To determine prevalence of unintended pregnancy among pregnant women of reproductive age group in Dessie city administration
- To identify associated factors of unintended pregnancy in Dessie city administration

Methodology Study design

A community based cross sectional study design was conducted in Dessie city administration from Nov. - Dec. 2014. Systematic random sampling method was used to identify study units from each of 16 kebeles. First the calculated sample size allocated proportionally for each of kebeles based on their own existing number of pregnant women or the sample frame which was obtained from the kebele Health extension workers. Data coded and entered to EPI Info version 0.7 software packages and then exported to SPSS version 20 for editing and analysis. Ethical clearance was obtained from concerned authorities.

Results

The study was conducted from November to December 2014 on pregnant women of Dessie city administration and all of the 340 participants were interviewed with the response rate of 100%.

Socio demographic status of mothers

The mean and SD of current women age was found to be $27.05(\pm 5.3)$. Of the study participants 272(80%) were urban dwellers, 319(93.8%) participant were married, 207(60.9%) had 1-3 family size. 188(55.3%) participants were Muslim. Almost all of participants 334(98.2%) were Amhara in ethnicity

Socio economic status of mothers

Among the study participants 300(88.2%) were passed

through the formal education. 24(7.1%) of the respondents were reported unable to read and write. About 233(69.9%) of women were housewife. 292(91.8%) of women reported their husband joined formal education and 118 (34.7%) were with monthly income less than \$50.

Reproductive characteristics of women

The mean and SD of age at first pregnancy was found to be 21.9(+ 3.7). About 286(84%) of women had got 1-3 pregnancies, only 34(10%) were reported they ever had previous unintended pregnancy and almost all of them 32(94.1%) had 1 – 2 unintended pregnancies. 188(54.7%) were gave birth for 1-3 children, 124(36.5%) were reported that it was the 1st pregnancy and never gave birth before, 162(47.6%) were reported they preferred to have 3-4 children and 274(69.7%) participants were desired to have 3 and above years of the gap between two consecutive births. Of 340 participants 73 (21.5%) were reported that their current pregnancy was unintended

The most frequently mentioned reasons by the participants for the occurrence of current unintended pregnancy were lack of knowledge 45(61.6%), fear of side effect 30(41.1%), forced by the husband 15(20.5%) and violence 9(12.3%) (Fig 2).

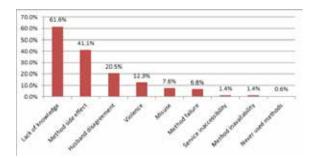


Figure: 2. Frequently mentioned reasons of unintended pregnancy in Dessie city administration, Nov. - Dec., 2014

Knowledge and practice on contraceptive

About 323(95%) of respondents know one or more FP methods and mentioned their source of information 69% from media, 59% from Health center or Hospital, 45% from HEWs. 310(91%) had TV or Radio in their home. 223(65.6%) know more than one advantages of family planning, 199(58.9%) know about emergency contraceptive methods. 279(82%) had history of ever used one or more family planning Method and 159(46.9%) were reported they used Inject able contraceptive methods. 242(86.4%) of the participants were reported they used their preferred method properly following the instruction given. On the other hand 77(27.5%) were complaining that they had got side effect when using contraceptive methods and 11(4%) were reported they ever had method failure. Regarding spousal communication and autonomy of women to use contraceptive methods, participants reported 301(92.9%) and 258(77.9%) respectively. 285(87.7%) also respond they had got husband support to use contraceptive methods they preferred

Bivariate and Multivariate analysis

All factors associated with Unintended Pregnancy in Bivariate analysis were again tested with multivariate analysis to control the possible confounding factors. In multivariate analysis $1^{\rm st}$ factors with P < 0.2 were tested separately based on their categories (socio demographic, socio economic, reproductive and knowledge& practice). Finally, those factors associated with P < 0.05 from each category again tested with multivariate model logistic regression. From this test it was found that number of pregnancies, knowledge of emergency contraceptive method, method side effect and husband disagreement to use FP methods were maintained to have significant association with unintended pregnancy. On the other hand those factors like age of the woman, family size, women education,

women occupation, family monthly income and parity were not have association with unintended pregnancy.

Table 1. Factors associated with unintended pregnancy in Dessie city administration; Nov. - Dec., 2014

Variables	Intention to pregnancy (n=340)		.COR(95%-	AOR(95%-
variables	In- tend- ed	Unin- tended	CI)	CI)
Age of mother				
15 – 24	85	31	1.0	
25 – 34	153	26	0.47(0.26, 0.84)*	
35 and above	29	16	1.51(0.73, 3.16)	
Family size				
1 – 3	171	36	1.0	
4 – 6	91	31	1.62(0.94, 2.79)	
7 and above	5	6	5.7(1.65, 19.7)*	
Women education				
Unable to read & write	13	11	13.54(3.73, 49.2)	
Only read & write	7	9	20.57(5.0, 84.5)	
1 - 8	71	27	6.09(2.02, 18.34)	
9 – 10	86	16	2.98(0.95, 9.33)	
11 – 12	26	6	3.69(0.96, 14.17)	
12+	64	4	1.0	
Women occupa- tion				
Employed	38	11	1.0	
Merchant	27	6	0.77(0.25, 2.33)	
House wife	192	41	0.74(0.35, 1.56)	
Others***	10	15	5.18(1.82, 14.7)	
Monthly income				
<1000	77	41	5.18(2.5, 10.72)	
1001 – 2000	83	21	2.46(1.12, 5.39)	
>2000	107	11	1.0	

Variables	Intention to pregnancy (n=340)		- COR(95%-	A O D/O F 0/ CI)
	In- tend- ed	Unin- tended	CI)	AOR(95%CI)
Gravidity				
1 – 3	235	51	1.0	1.0
4 and above	32	22	3.17(1.7, 5.89)	4.02(1.55, 10.44)*
Parity				
None	98	26	1.0	
1 – 3	157	29	0.7(0.39, 1.25)	
4 and above	12	18	5.65(2.42, 13.2)	
Knowledge of EC				
No	82	59	8.51(5.02, 18.0)	10.87(4.13, 28.59)**
Yes	185	14	1.0	1.0
Method side effect				
No	179	24	1.0	1.0
Yes	53	24	3.38(1.78, 6.43)	7.92(3.05, 20.56)**
Husband agree- ment				
No	13	27	16.4(7.7, 35.0)	26.49(6.3, 111.38)**
Yes	253	32	1.0	1.0

*Significant at P<0.05 **Significant at P<0.001 *** Others in-

clude daily laborers and house maids.

Discussion

This study was conducted to determine the prevalence and associated factors of unintended pregnancy in Dessie city administration from November to December 2014.

The prevalence of unintended pregnancy was found to be 21.5%. This finding was lower than the finding in kersa (27.9%), Harar (33.3%), Hossana (34%), Gilgel Gibe (35%), Ganji (36.5%) and Damot gale (42.4%). Such observed difference might be due to the fact that majority of the study participants in Kersa, Gilgel Gibe, Ganji and Damot Gale were rural dwellers whereas the majority of participants in Dessie city administration were urban in residence. The other reason might be the study populations in Gilgel Gibe, Harar and Damot Gale were all women of reproductive age group that they were asked about their history of recent pregnancy which might be affected with recall bias. Where as in the study area Dessie, the study populations were all pregnant women and asked about current pregnancy. In addition, time variation in relation to the progress of service provision and increased contraceptive prevalence rate might be the reason for the prevalence of current study to be lower than the previous ones.

The most frequently mentioned reasons by the participants for the occurrence of unintended pregnancy were lack of knowledge, fear of side effect to use contraceptive methods, husband disagreement and Sexual violence. These reasons also similar with study conducted in Ganji woreda [3], Hossana town [18] and Damot Gale district [22]. Participant's response reveals that there were no significant problem on contraceptive availability and accessibility in the study area and most of study participants (82%) were practiced in using contraceptive methods. Rather there is knowledge gap regarding proper use of contraceptive methods and how to cope themselves during method side effect. The reason might be due to lack of effective IEC and counseling service during contraceptive method provision both at health facility and community level.

Gravidity was significantly associated with the occurrence of current unintended pregnancy. Women with 4 and above gravidity were 4 times more likely to have unintended pregnancy than those with 1 - 3 [AOR = 4.01, 95% CI: 1.55, 10.44]. This finding is supported by the study conducted in Hossana in which women with 5 or more pregnancies were more likely their pregnancy to be unintended [18] and also supported by the study conducted in Harar where mothers with 5 or more pregnancies had increased likelihood of pregnancy to be unintended [19] . This might be due to the fact that as the number of pregnancy increases, the mother gets exhausted and her intention to have more additional birth will decrease. After all, this woman will have more chance to get unintended pregnancy.

Knowledge of emergency contraceptive method is significantly associated with unintended pregnancy. Women with lack of knowledge about emergency contraceptive methods were 10.9 times more likely to report having unintended pregnancy as compare to women who had knowledge (AOR=10.87, 95%Cl= 4.13, 28.59). Once unprotected sex happened, it is obvious that the only method of choice to prevent conception is emergency contraception. Missing this method might make unintended pregnancy inevitable.

Women who reported history of side effect while using contraceptive methods were almost 8 times more likely to have unintended pregnancy as compare to women with no history of side effect [AOR = 7.92, 95% CI: 3.05, 20.56]. The possible reason could be those women complaining of contraceptive side effect may not use contraceptive methods properly that they may not follow the instruction given by service providers or they may interrupt to use the given method so that they will have more chance to get unintended pregnancy.

Women reported their husband not agreed to use contracep-

tive were 26.5 times more likely to get unintended pregnancy than women whose husband agreed [AOR = 26.49, 95% CI: 6.3, 111.38]. This result is supported by the study conducted in Ganji woreda and Hossana town where women whose husbands disagree to limit family size were more likely to declare their pregnancy unintended compared to agreed [3,18]. The possible reason might be due to men's preference to have more children than women.

Conclusion

The prevalence of unintended pregnancy in Dessie city administration found to be 21.5%. Even though the percentage of unintended pregnancy is lower as compared to other studies, still it is one of the major reproductive health problems that may lead the affected women to seek for illegally induced or unsafe abortion which is one of the major causes of maternal mortality.

Increased number of pregnancy, Lack of knowledge about emergency contraceptive methods, method side effects and lack of husband support or agreement in using contraceptives were significantly associated factors for the occurrence of unintended pregnancy.

There is knowledge gap about emergency contraceptives and other contraceptive method use.

There is also low males' involvement in supporting women to use contraceptive methods and limiting number of children.

Recommendation

The problem unintended pregnancy seems a little bit neglected in different national indicators. So, FMOH should give specific attention for the issue and incorporate in the overall strategic plan to prevent unintended pregnancy with all its adverse effect.

Regional health bureaus, zonal health departments, woreda health offices in collaboration with relevant NGOs and other stake holders should work very hard to improve males' involvement in reproductive health issues and to empower women in strengthening their decision making role in using contraceptive methods when they need.

Health officials at all level should undertake close follow up and monitoring to health facilities and community service providers in providing effective health education and counseling service

Hospital/Health center staffs and Health extension workers should further strengthen proper counseling service for the clients including the husband/partners to increase their awareness regarding emergency contraceptives and all other methods of contraceptives use. They should also work with kebele leaders like women's and child affair, Idir, religious leaders to improve males' support in contraceptive use and women's empowerment in making decisions regarding limiting fertility.

Researchers may also conduct further study to identify mistimed and unwanted pregnancy in the study area Dessie city administration.

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