

Prevalence and Associated Factors with Unintended Pregnancy among Pregnant Women: Attending Antenatal Care Follow up in Mizan Aman General Hospital, Bench Maji Zone, Southern Ethiopia

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ABSTRACT

Background: An unintended pregnancy is unwanted, unplanned or mistimed at the time of conception, despite modern contraception, better provision of sex education, and greater scientific knowledge about reproduction. A number of factors combine to place women today at great risk of unintended pregnancy. An unintended pregnancy is a pregnancy associated with an increased risk of morbidity for women and with health behavior during pregnancy.

Objective: The aim of this study was to assess the prevalence and associated factors of unintended pregnancy among pregnant women attending Antenatal care follow up in Mizan Aman General Hospital, Ethiopia.

Methods: The study was conducted in Mizan Aman General Hospital and institutional based cross-sectional study was conducted to determine the prevalence and associated factors of unintended pregnancy. Convenience sampling method was used during the study period and data was collected from May 1-15, 2021 by using semi structured questioner but this was pre tested before actual data collection. Finally, description, tables, graphs and charts were used to present the result.

Result: 204 respondents were interviewed and the response rate was 100%. The prevalence of unintended pregnancy was 36.8% and the most frequent reasons mentioned by the participants in this study for failure to avoid unintended pregnancy were forget of contraceptive and discontinuation, ideal number of children a women wanted, difficulties in negotiating contraceptives as well as contraceptive failure.

Conclusion: According to this study age of the respondent, occupation, educational status, marital status, age at marriage, Inter-pregnancy length, discussion about their pregnancy before getting it and knowledge about advantage of contraceptive were significantly contributing to unintended pregnancy.

Keywords: Unintended pregnancy; pregnant women; Ethiopia

INTRODUCTION

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, contraceptive failure and less commonly, from rape [2].

Unintended pregnancy is a worldwide problem that affects women, their families and societies at large. The ability to choose weather and when to bear children is fundamental aspect of reproductive health. It is a core concept in understanding

the fertility of population and unmet need for contraception. Unintended pregnancy is associated with an increased risk of morbidity for women and with health behavior during pregnancies that are associated with adverse effects [3].

Globally, nearly four in ten pregnancies are unintended. And about two in ten ends in abortion. Unintended pregnancies are those that occur when a couple has not made a decision to conceive, or when pregnancy occur in spite of using contraceptive measures [4].

Women's with Unintended pregnancy have fewer opportunities to prepare for an optimal health outcome increases the risk

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of adverse birth outcome, delayed recognition of pregnancy, Gestational diabetes mellitus, hypertensive disorder of pregnancy and to be hospitalized during pregnancy than women with intended pregnancies [5].

World health report notes that unwanted and mistimed or unintended pregnancies are the most common cause of maternal mortality. In developed countries of the 28 million pregnancies occurring every year, an estimated 49% are unplanned and 36% end in abortion [6].

Women's with Unintended pregnancy have fewer opportunities to prepare for an optimal health outcome increases the risk of adverse birth outcome, delayed recognition of pregnancy, hypertensive disorder of pregnancy and to be hospitalized during pregnancy than women with intended pregnancies [5]. Prevention of unintended pregnancies must always be given the highest priority and every attempt should make to eliminate the need for abortion. So, this study will provide information on about the extent of magnitude and risk factors of unintended pregnancy in Mizan Aman General Hospital.

METHODS AND MATERIALS

Study area and period: This study was conducted in Mizan Aman General Hospital Southern Ethiopia, It was constructed in 1986 and it is located 560 km from Addis Ababa and 830 km from Hawassa in south west Ethiopia. It is estimated to give a service for about 2 million people. The study period was May 1-15, 2021.

Study design: Institutional based cross-sectional study was used.

Source population: All pregnant mothers attending ANC service in Mizan Aman General Hospital.

Study population: All pregnant women who visit antenatal care during study period.

Inclusion criteria: All pregnant women who attend ANC service during study period will be included.

Exclusion criteria: Pregnant women who are severely ill, pregnant women who are not available during study period, pregnant women who are temporary visitors or referred from other health institution and pregnant women who has physiological defect like hearing problem.

Sample size: The sample size was calculated using single population proportion formula

$$n = z^2 pq / d^2$$

$$n = (1.96)^2 0.34(1-0.34) / (0.05)^2$$

$$n = 3.84 \times 0.34 \times (0.66) / 0.0025$$

$$n = 345$$

Since N less than 10,000, so we use correction formula

$$ns = n / 1 + n / N \text{ Where } N = 400$$

$$ns = 345 / 1 + 345 / 400$$

$$ns = 185.6$$

10% for non-respondent rate

$$ns = 185.6 \times 10\%$$

ns=204

Where n is minimum sample size

P, is prevalence of unintended pregnancy in Hosanna town

q=1-p

z²=standard normal confidence interval [7].

Sampling Technique: Convenience sampling method was done to assess prevalence and associated factors of unintended pregnancy among pregnant women who attend ANC service in Mizan Aman General Hospital during data collection period.

Variables

- Independent variables:
- Socio-demographic factor
- Family planning usage
- Spousal communication
- Exposure to mass media
- Age at first marriage

Dependent variable: Unintended pregnancy

Operational definitions

Unintended pregnancy: Includes pregnancy which happens without the desire of the mother.

Mistimed pregnancy: A pregnancy which occurred without the wish of the woman at the specific period of time of occurrence of the pregnancy, but the mother has a desire to have child in the future.

Pregnant women: A woman with amenorrhea for at least 2 months and has minor symptoms of pregnancy as well as the woman believes to be pregnant or woman who claims that she was told to be a pregnant by health worker on her visit to health institution and believes to be a pregnant.

Unwanted pregnancy: Unintended pregnancy that is not desired by parents.

Contraception: The use of natural or hormonal methods of family planning to prevent conception or pregnancy.

Abortion: Spontaneous or induced termination of a pregnancy before 28 weeks of gestation.

Data collection instrument: Semi structured questionnaire was used, which was adopted from similar literature, the questionnaire was contain open ended and closed ended question. The questionnaire was prepared in English and we translate in to Amharic during interview as well as we clarify it for better understanding. The interview was made by face to face interview. Data was collected by four public health officer students.

Data quality control measures: Before the actual data collection, questioners were pretested on 5% of similar population of the sample size other than the study site (health center), and if any problem is encountered during pretest related to questioners or data collection was discussed and modification was undertaken accordingly. To assure the quality of data, we were cross checked the collected data for its completeness, clarity and correction of data was made.

Data analysis: The questioner was numbered and collected data was sorted and processed using manual compilation. The processed data was analyzed manually using scientific calculator and the analyzed data was presented using tables and diagrams.

RESULTS

Socio-demographic characteristics

Two hundred four pregnant women attending ANC follow up in MAGH were participated and interviewed in the study and their response rate was 100%. More than half of the respondents 114(55.9%) were in the age group of 15-24 years and a little less than half of respondents 99(48.5%) were protestant by religion. Majority of the participant 144(70.6%) were urban residence.

Regarding to educational status of study participant 75(36.8%) were attend primary school (Figure 1). About 159(77.9%) of the study participants were married whereas 25(12.3%) were divorced. Concerning ethnicity 63(30.8%) were bench and 60(29.4%) were Amhara (Table 1). A little less than half of the respondents 90(44.1%) were house wife followed by 36(17.6%) were govt employ (Figure 2).

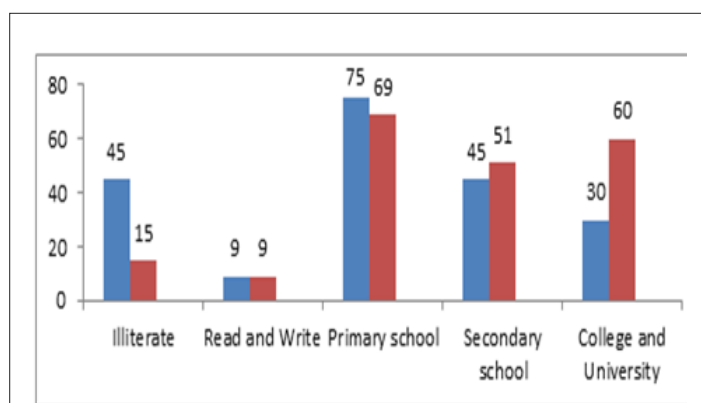


Figure 1: Educational level of women attending ANC and their partner at Mizan Aman General Hospital, May 1-15, 2021. Note: (■) Women, (■) Partner.

Table 1: Socio demographic characteristics of pregnant women attending ANC follow up at Mizan Aman General Hospital, May 1-15, 2021.

Variable	Frequency	Percent	
Age	15-24	114	55.9
	25-34	90	44.1
Religion	Protestant	90	48.5
	Orthodox	60	29.4
	Muslim	45	22.1
Residence	Urban	144	70.6
	Rural	60	29.4
	Marital status	Married	159
Single		5	2.5
Divorced		25	12.3
Widowed		15	7.4

Ethnicity	Frequency	Percent	
Beach	63	30.8	
Amhara	60	29.4	
Oromo	18	8.8	
Keffa	30	14.7	
Tigre	6	2.9	
Other	27	13.2	
Total house hold income	Up to 500	30	14.7
	501-1000	105	51.5
	1001-2000	45	22.1
	2001-3000	24	11.8
	>3000	-	-

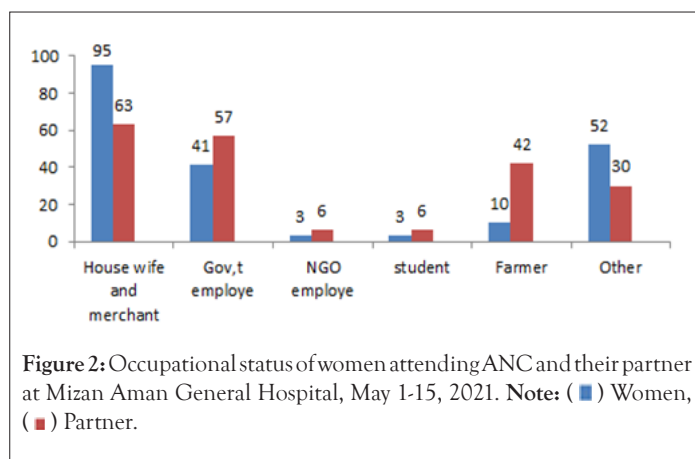


Figure 2: Occupational status of women attending ANC and their partner at Mizan Aman General Hospital, May 1-15, 2021. Note: (■) Women, (■) Partner.

Reproductive characteristics

Almost half of the study participants 105(51.5%) were experienced their first sexual intercourse at the age of 15-19 yr and majority of the respondents 142(69.6%) were married at the age of above 18yr 87(42.7%) were experienced their first pregnancy at the age of 20-24yr and 105(51.5%) of the respondents have children (Table 2) and a little less than half of the respondents 99(48.5%) were pregnant in the past (Figure 3).

Table 2: Reproductive characteristics of pregnant women attending ANC follow up at Mizan Aman General Hospital, May 1-15, 2021.

Variable	Frequency	Percent	
Age at first sexual inter course	<15yr	24	11.8
	15-19	105	51.5
	20-24	60	29.4
Age at first marriage	≥ 25	15	7.4
	<18yr	72	35.3
Age at first pregnancy	≥ 18yr	142	69.6
	15-19	84	41.2
	20-24	87	42.7
	25-29	30	14.7
	≥ 30	3	1.5

Have you children	Yes	105	51.5
	No	99	48.5
Number of children ever born	1-2 yrs	60	57.1
	3-4 yrs	42	40
	≥ 5	3	2.9
Desired number of children	No	36	17.6
	1-2 yrs	120	58.8
	3-4 yrs	48	23.5
	≥ 5	0	0

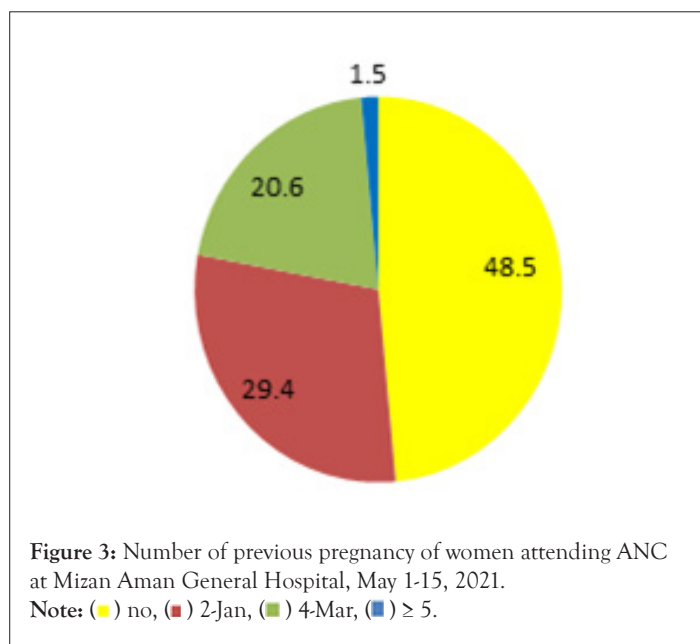


Figure 3: Number of previous pregnancy of women attending ANC at Mizan Aman General Hospital, May 1-15, 2021. Note: (●) no, (■) 2-Jan, (■) 4-Mar, (■) ≥ 5.

Knowledge on modern contraceptive

Majority of the respondents 139(68.1%) heard about modern contraceptive and knew the advantage of it. The main reason for using contraceptive was to limit the number of children, to space the birth interval and to prevent unintended pregnancy (Figures 4, 5).

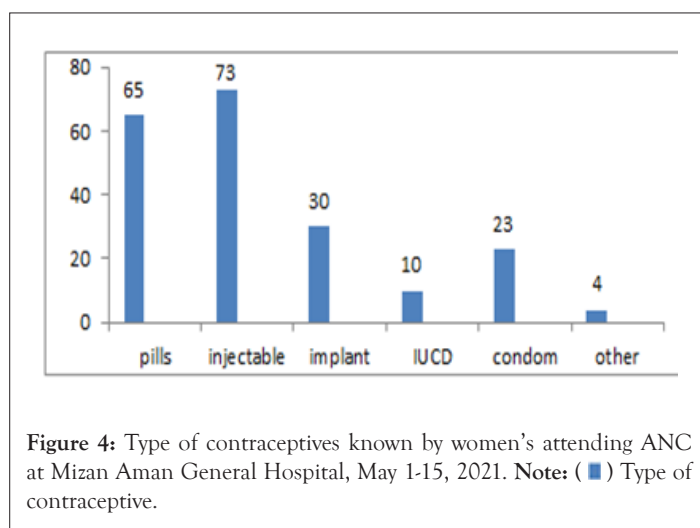


Figure 4: Type of contraceptives known by women's attending ANC at Mizan Aman General Hospital, May 1-15, 2021. Note: (■) Type of contraceptive.

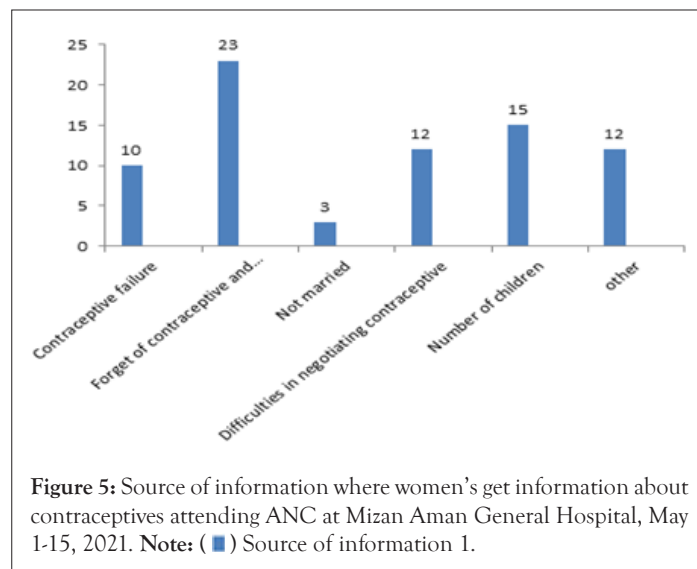


Figure 5: Source of information where women's get information about contraceptives attending ANC at Mizan Aman General Hospital, May 1-15, 2021. Note: (■) Source of information 1.

Attitude on unintended pregnancy

Majority of the respondents 186(91.2%) disagree the idea of abortion is a measure for UP and 147(72%) support the usage of family planning but 57(27.9%) not support it. Almost all respondents 198(97%) believed that partner discussion is important about pregnancy before getting it and agreed with communicating about family planning with the partner is important as well as 201(98.5%) believed that not decided when to have another child results in UP.

Practice on the current pregnancy

Among the respondents 162(79.4%) were not pregnant in the last five years but 42(20.6%) were pregnant and their pregnancies were intended. Regarding to the current pregnancy 75(36.8%) of the respondents were unintended. Among this, 50(66.7%) were mistimed and 25(33.3%) were unwanted. Almost all respondents said that UP results in maternal and child death and it causes the child has not properly bearing by his/her parents. More than half of respondents 129(63.2%) of the recent pregnancy were planned and wanted as well as the respondents said that it is important for good child and maternal health (Figure 6).

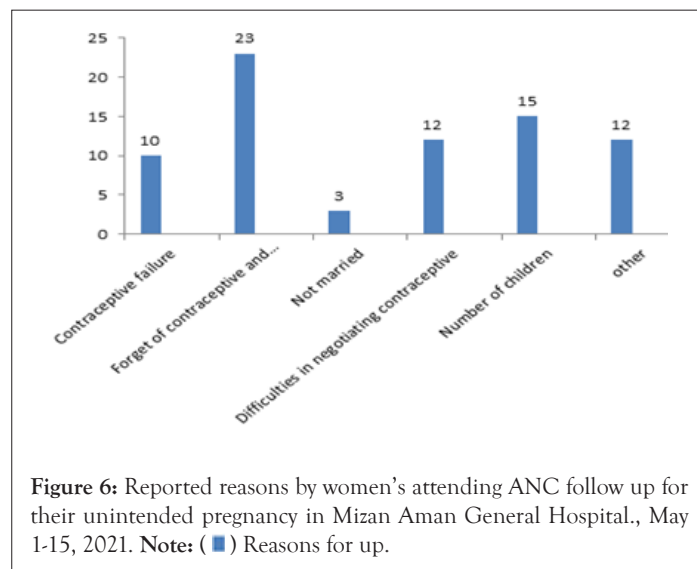


Figure 6: Reported reasons by women's attending ANC follow up for their unintended pregnancy in Mizan Aman General Hospital, May 1-15, 2021. Note: (■) Reasons for up.

About 120(58.8%) of the respondents wanted to have another child after this pregnancy and 50(41.7%) of this study participants wait greater than three years before the birth of

another child whereas 42(35%) waits less than 2 yrs and 7(5.8%) of the respondents not decided. About 12(5.9%) of the respondents were faced abortion in the last 5 yrs which was spontaneous and one times 6(50%) of them were aborted in hospital and the other 6(50%) were aborted at home. About 139(68.1%) of the study participant were ever used modern contraceptive whereas 65(31.9%) were not used. Among the study participants 180(88.2%) were used modern contraceptive during recent pregnancy from which Depo-Provera accounts 120(66.7%) followed by pills 37(20.5%) and implant 13(12.8%). About 24(11.8%) were not used contraceptives during recent pregnancy because of fear of its side effect, desire for more children, lack of awareness, disapproval by their husband and difficulties in negotiating contraceptives.

Regarding to discussion about modern contraceptive, 144(70.6%) were discussed with their partner whereas 60(29.4%) were not discussed. About 112(54.4%) decided about modern contraceptives together but 57(27.9%) and 18(8.8%) wife and husband decided about contraceptives respectively.

Identified factors contributing to unintended pregnancy

Out of independent variables age of respondent, educational status, occupation, age at marriage, heard about contraception and knowledge about advantage of it, partner discussion about pregnancy, inter pregnancy length and ever used of contraceptive had a significantly contributing factor to unintended pregnancy (Table 3).

Table 3: The association between selected socio demographic variables and intention to recent pregnancies among pregnant women attending ANC follow up in Mizan Aman General Hospital, May 1-15, 2021.

Variables	Unintended pregnancy		COR	
	Yes	No		
Age	Unintended pregnancy	66	0.6	
	Yes	No	COR	
	≥ 35	0	0	
Educational status	Illiterate	20	25	1
	Read and write	5	4	0.64
	Primary school	22	52	1.9
	Secondary school	21	25	0.95
	College and University	7	23	2.6
Occupation	House wife	28	67	1
	Govt. employ	19	32	0.7
	Ngo	0	3	-
	Student	2	1	0.2
	Farmer	4	6	1.6
	Other	23	19	0.3

Marital status	Married	56	103	1.2
	Single	2	3	1
	Divorced	9	16	1.2
	Widowed	8	7	0.6
Age at first marriage	<18	20	47	1
	≥ 18	50	87	0.7
Heard about Contraceptive	Yes	71	68	0.06
	No	4	61	1
Knowledge about advantage of contraceptive method	Yes	71	68	0.06
	No	4	61	1
Partner discussion about Pregnancy	Yes	70	74	0.09
Not decided when to have children	No	4	55	1
Inter pregnancy length	Yes	71	100	0.2
Ever used Contraceptives	No	4	29	1

DISCUSSION

This study shows the prevalence and associated factors of Unintended pregnancy, such as demographic, socio-economic, socio-cultural, access to health information, KAP and use of contraceptive methods on UP. The prevalence of unintended pregnancy was found to be 75(36.8%). This finding is comparable with a similar study conducted in Hosanna town 34%, Harare town 33.3% and Kersa [7-9].

On the other hand, the prevalence of UP in this study was lower than the study done Demote gale district, south Ethiopia (42.4%) [10]. But it was higher than the study done in Iran (31.5%) [11]. This could be due to diverse tradition, cultural and religious denomination.

The most frequent reasons mentioned by the participants in this study for failure to avoid Unintended pregnancy were forget of contraceptive and discontinuation, ideal number of children, difficulties in negotiating contraceptives as well as contraceptive failure and it also mentioned in other studies but in one study which is done in Ethiopia 95% of UP occur among the women who don't practice contraception at all [12,13]. This may be due to lack of adequate awareness about contraception.

Majority of the respondents 139(68.1%) were aware of contraceptives, however, this high knowledge of contraceptives appears to contradict with high prevalence of Unintended pregnancy. About 23(30%) of Unintended pregnancy in our study were due to forget of contraceptive and contraceptive discontinuation. Although the cause this may need to be investigated in more details, poor counseling during service delivery and inability to tolerate minor side effects are more likely a contributing factor.

Women's in age between 25-34yr had 40% times higher risk

of unintended pregnancy when compared to women's in age between 15-24 years. The finding is in contrast with other studies done. This is due to women's at this age might be attained their desired number of children and will regard any additional child as unintended.

Educational status of women's was one of the predictors of Unintended pregnancy but in this study area, illiterate women's were 90% and 160% times less likely to experience risk of Unintended pregnancy when compared to women's who was attended primary school, college and university respectively. This might be due to fear of side effects of contraceptive. Even though education as having pervasive impacts on 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.

Women's who were house wife had 80% and 30% times risk of experiencing Unintended pregnancy when compared to women's who were students and government employer respectively. This might be due to lack of awareness about contraceptives and inability to know method choice as well as being less autonomy. Who married before age of 18 had 30% times higher risk of unintended pregnancy compared to married after age of 18, it was stated in other studies [7-9,14].

This was due to the fact that women who married in early age would bear children early and the reproductive life time that she had many children increased and the other possible reason may be those who married in early age would less likely to attend and formal education which may lead to lower level knowledge about family planning and reproductive health system contributing to higher rate of unintended pregnancy.

Women's whose marital status was married had 1.2 times risk of experiencing UP compared to single one. This might be due to inconsistent or incorrect use of contraceptives or due to partner desire for child.

Women's who didn't hear about contraceptive and didn't know about advantage of it had 94% risk of Unintended pregnancy compared to who hear and knows about it. This may be because of women's who had low knowledge and not hear about contraceptive were less likely to know the available option and to use method correctly. Also who didn't discuss about pregnancy before getting it with their partner and not ever used contraceptives had 91% and 94% risk of experiencing unintended pregnancy.

CONCLUSION

According to this study age of the respondent, occupation, educational status, marital status, age at marriage, Inter pregnancy length, discussion about their pregnancy before getting it and knowledge about advantage of contraceptive were significantly contributing to unintended pregnancy.

LIMITATION

The sensitivity of the reproductive issue and exposed 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.

DECLARATION

Ethics approval and consent to participate

A formal letter was obtained from college of health science, Mizan Tepi University to Mizan Aman General Hospital. Information was gathered on voluntary basis after consent was obtained from respondents and confidentiality of the individual record was kept.

Consent for publication

Not applicable

Availability of data and materials

The paper includes all data.

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CONFLICT OF INTEREST

There are no conflicts of interests stated by the authors.

AUTHOR'S CONTRIBUTION

KT was responsible for conceptualization, methodology, analysis, supervision, and report writing, TKU was responsible for analysis, report writing and methodology and, SE, JC and YA was responsible for methodology, and report writing.

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