Intention to use contraceptives and its determinants among adolescent women of Tigray, Northern Ethiopia

Haftom Temesgen Abebe[1*], Yodit Zewdie Berhe[2], Getachew Redae Tafere[3], Alem Desta Wuneh[4], Letekirstos Gebreegziabher Gebretsadik[1], HaftuBerhe Gebru[6], Alemayoh Bayray Kahsay[7], Yibrah Berhe Zelelow[5], Medhanie GebresilassieAraya[8], Mengistu Welday Gebremichael[9]
[1]Department of Biostatistics, College of Health Sciences, Mekelle University, Mekelle Ethiopia
[2]Department of Health System, College of Health Sciences, Mekelle University, Mekelle Ethiopia
[3]Department of Environmental and Behavioral Science, College of Health Sciences, Mekelle University, Mekelle Ethiopia
[4]Department of Health System, College of Health Sciences, Mekelle University, Mekelle Ethiopia
[5]Department of Obstetrics and Gynecology, College of Health Sciences, Mekelle University, Mekelle, Ethiopia
[6]School of Nursing, College of Health Sciences, Mekelle University, Mekelle Ethiopia[7]Department of Epidemiology, College of Health Sciences, Mekelle University, MekelleEthiopia
[8]Department of Ear, Nose and Throat, College of Health Sciences, Mekelle University, MekelleEthiopia
[9]Department of Midwifery, College of Health Sciences, Mekelle University, MekelleEthiopia

*Correspondence: E-mail: haftoma@gmail.com

Abstract

Background: Access to contraceptive methods has the potential to reduce maternal and child mortality. Intention to modern contraceptive uptake appears to be the best predictor of actual uptake of contraceptive. This study aimed to assess the intention to use contraceptives and its determinants among adolescent women in Tigray.

Methods: A cross-sectional study was conducted on 1755adolescent women. A binary logistic regression analysis was fitted to assess the determinants of intention to use contraceptives among the adolescent women and odds ratio with 95% CI was used to assess associations at a 0.05 level of significance

Results: The magnitude of intention to use of a contraceptive method in the near future was 70.3%. The odds of intention to use of modern contraceptive was higher among older adolescents (AOR=1.11; 95%CI:1.01-1.21), who knew at least one contraceptive method (AOR=4.73; 95%CI:2.26-6.87), previous contraceptive use (AOR=2.66; 95%CI:1.68-4.22), did not fear of side effects (AOR=1.68; 95%CI:1.22-2.33), did not feel shy to buy contraceptive (AOR=2.54; 95%CI:2.01-3.21).Moreover, adolescents with college or above education were more likely to have intention to use of contraceptive in the near future (AOR=3.53, 95%CI:1.15-10.83).

Conclusion: Seven in ten adolescent women have intention to use contraceptives in Tigray. The factors reported for not having the intention to use modern contraceptives were fear of side effects, shyness to buy contraceptives, and lack of information about contraceptives. Solving the barriers and promoting the contraceptive methods through media could improve intention to use of contraceptive methods.

p-ISSN: 2664-0775, e-ISSN: 2664-0783

Keywords: adolescent women, intention to use, modern contraceptive, logistic regression model

Introduction

Adolescence is the period between the ages of 10 and 19 years when young individuals transition into adulthood [1]. This period is subdivided by some writers into early (10-14 years) and late (15-19 years) adolescence [2] whereas others refer to early (10–13 years), mid (14–15 years), and late (16–19 years) adolescence [3]. Adolescent females aged 15-19 account for over 14 million births each year worldwide, 91 percent of these in low and middle-income countries [4].

Though levels of adolescent childbearing have fallen substantially, high adolescent fertility remains a concern in some parts of the world. Among regions, the adolescent birth rate in 2010-2015 was highest in Africa, at 99 per 1,000 women, followed by Latin America and the Caribbean[5]. According to a United Nations (2016) report, Ethiopia's adolescent childbirth was 65 per 1,000 women[6] and 28 percent of adolescents have had unintended pregnancies[7]. That would put them at a high risk of death or lifelong complications[8-11] To avert the problem of maternal mortality and the risk of unintended pregnancy, the use of modern contraceptives (family planning) is crucial[12, 13].

However, according to the United Nations Population Fund (UNFPA) [14]report, the demand and use of contraceptives among 15-19-years old in sub-Saharan Africa is 30% and 20%, respectively. They further commented lack of access to family planning (FP) services and negative attitudes of health workers toward adolescent contraceptive use have contributed to high rates of pregnancies among adolescents[15].

In Ethiopia, 9.4 million of the population was female adolescents based on the Ethiopia Demographic and Health Survey (EDHS) report[16], and in Tigray, the UN (2012) revision reported 7.3%[17]. Taking the magnitude of adolescents in Ethiopia and in Tigray, the problems; teenage pregnancies, low knowledge, and usage of contraceptives, high fertility rates and high incidence of sexually transmitted infections (STI) would not be different from their counterparts in Africa.

The government of Ethiopia, its development partners, and international and local NGOs have been implementing vigorous activities to improve the use of contraceptives for many decades. Among the activities done so far are the community-based distribution of family planning services through health extension programs, removal of all duties and taxes on imported contraceptives, and youth reproductive strategy (youth-friendly service)[13, 18].

Studies investigated determinants for the use of modern contraceptive methods in women. Poverty, poor access to services and commodities, place of residence, marital status, worry about side effects, myths and misconceptions were among many other factors affecting contraceptive use in Africa[19, 20]. In Ethiopia, age, educational status, knowledge of reproductive health, discussion with family/relatives, peer groups, sexual partners, parent disapproval, lack of basic information, and pressure from partners were found to affect women from accessing and using reproductive health[21-27].

In spite of the recent increase in contraceptive use, still Ethiopia had one of the lowest rates of contraceptive use compared with other countries[25]. Although the knowledge of contraceptive methods is universal in Ethiopia, the overall contraceptive use among reproductive-age women remains low (35.3%) and the

p-ISSN: 2664-0775, e-ISSN: 2664-0783

http://www.mu.edu.et/eajhs

contraceptive use among adolescent women is low (7.4%) at the national level[16]. Moreover, small-scale studies conducted in Ethiopia showed the prevalence of contraceptive use among adolescent women was 17.6% in Jimma and 21% in Gojam[27, 28]. A recent study from Tigray found that the prevalence of contraceptive use among adolescent women was 12.3%[26], which is a bit higher than the EDHS (7.4%)[16].

Though contraceptive methods are a fundamental approach to reducing maternal and child mortality, the use in Ethiopia among adolescent women is less than 10%[16], which is too low. This low use of contraceptives among adolescents prompted us to examine the intention to use modern contraceptives uptake. This is because the intention to use influences health seeking behavior of contraceptive use[29]. Also, studies on the intention to use modern contraceptives among adolescent women and its associated factors are scarce in Ethiopia. The existing studies mainly focus on married, postpartum, and women's intention to have an abortion. For example, the studies conducted in Ethiopia examined the intention to use contraceptives among postpartum women[23] and married women[24, 30-32]. Another study also assessed post-abortion intention to use contraceptives and associated factors[33]. This study, therefore, assessed the intention to use contraceptives among adolescent girls and associated factors in Tigray, Ethiopia.

Materials and Methods

Study design and study setting

A cross-sectional study design was carried in in three zones of the Tigray region: Central, Southern, and Eastern Zone in July 2018. Tigray is one of nine regional states of Ethiopia located at latitudes from 120

14’50.50” to 140 53’48.03” and longitudes from 360 26’48.74” to 390 59’0.09”. According to the 2016/17 projection of the Central Statistics Agency (CSA)[34], the state's population size is 5,247,005 in 2018 with an estimated area of 54,593 square kilometers. An estimated 73% of the population are living in rural areas. Administratively, the region is divided into seven zones (TRHB 2018)[35]. There are two specialized hospitals, 15 general hospitals, 22 primary hospitals, 223 health centers, and 740 health posts in the region. The region has achieved about 96% primary healthcare coverage with an emphasis on disease prevention and health promotion through investment in primary health care unit (PHCU) facilities (health posts, health centers, and primary hospitals).

Sources population

All adolescent women who lived in central, southern and eastern zones of Tigray were taken as sources of population.

Study population

All adolescent women who lived the three zones during the data collection period in the randomly selected households.

Sample size determination and sampling technique

The dataset for this analysis emanated from a previous study on contraceptive use among adolescents in Tigray, Ethiopia[26]. The sample size was estimated to be 1,755. Two-stage sampling was used to select the adolescent women. Facilities and households were the primary and secondary sampling units, respectively. All adolescents from the households within the selected facilities were included in the study.

Study variables

Dependent variable

In this study, the dependent variable is the future contraceptive intentions use among adolescent women. The outcome was

dichotomous, categorized as "Yes" and "No".

Independent variables

The independent variables are grouped as social demographic characteristics, reproductive and contraceptive experiences.

Data collection and quality control

The data were collected by well-experienced and trained data collectors. A structured questionnaire was used to interview the study participants. The designed questionnaire was translated first into the local language, Tigrigna, and back-translated to English to ensure its consistency. The questionnaires were pretested in similar settings one week before the data collection. The completeness and consistency of the data were assured through direct and daily supervision of the supervisor and principal investigators.

Statistical data analysis

Data were cleaned and analyzed in the STATA version 16 statistical tool. The study population was described using frequency (percentage), mean (±standard deviation (sd)) depending on the nature of the variables. Since the outcome variable is dichotomous, a binary logistic regression analysis was fitted to identify the determinants of intention to use contraceptive use among adolescent women. Bivariate analyses were conducted to assess the association between the independent variables and the outcome intention to use contraceptives among adolescent women. A multivariable binary logistic regression analysis was fitted to identify the adjusted effect of each determinant on the intention to use contraceptives among the study population of the specified study setting. All independent variables which were statistically significant p-value less than 0.25 in the bivariate analyses were included in the final model of the multivariable binary

logistic regression model. The assumptions of multicollinearity between two or more independent variables were checked by estimating the variance inflation factor (VIF).The discriminatory accuracy of a diagnostic test was also assessed through receiver operating curve (ROC). The decision regarding the statistical significance effect of independent variables on intention to use contraceptives was made based on either the 95% CIs for adjusted odds ratio (AOR) or associated *p*-values.

Results

Socio-demographic characteristics of study participants

A total of 1,755 adolescent women were included in the analysis. Of these, 1,234 (70.31%) have the intention to use contraceptives. The average age (SD) of the adolescent women was 16 ± 1.5 years. About 23.25% of the participants were 15-year age, of this 57.35% had the intention to use contraceptives, while 23.25% were 19-year age, and of these 84% have the intention to use contraceptives. One thousand fifty-nine (60.34%) were lived in rural areas; of these 69% have the intention to use contraceptives. One thousand one hundred eighty-seven (67.64%) of the study participants had attended secondary and above educational level and 1,407 (80.17%) of their mothers had no formal education. One thousand two hundred fifty-seven (71.62%) were students (Table 1).

Table 1 Background characteristics of study adolescent women in Tigray, Northern Ethiopia, June 2018 (n=1,755)

Variables		Intention to use contraceptive		Total (%)
		Yes (%)	No (%)	
Age	15	234 (18.96.)	174(33.40)	408(23.25)
	16	215(17.42)	133(25.53)	348(19.83)
	17	180(10.59)	74(14.20)	254(14.47)
	18	262(21.23)	75(14.40)	337(19.20)
	19	343(27.80)	65(12.48)	408(23.25)
Residence	Rural	731(59.24)	314(18.11)	1,059(60.34)
	Urban	503(40.76)	181(10.47)	696(39.66)
Level of education	No formal education	13(2.50)	5(0.29)	20(1.14)
	Primary school	284(23.01)	254(14.7)	548 (31.23)
	Secondary school	758(61.43)	219(12.67)	989(56.35)
	College and above	179(14.51)	16(0.93)	198(11.28)
Marital status	Single	1,079(87.44)	458(87.91)	1,537(87.58)
	Married	129(10.45)	39(7.49)	168(9.57)
	Divorced	22(1.78)	17(3.26)	39(2.22)
	Windowed	4(0.32)	7(1.34)	11(0.63)
Occupation	Student	851(68.96)	406(77.93)	1,257(71.62)
	House wife	182(14.75)	56(10.75)	238(13.56)
	Daily worker	80(6.48)	30(5.76)	110(6.27)
	Government Employee	12(0.97)	2(0.38)	14(0.80)
	Merchant	109(8.83)	27(5.18)	136(7.75)
Religion	Muslim	128(10.37)	49(9.40)	177(10.09)
	Orthodox	1,097(88.90)	466(89.44)	1,563(89.06)
	Others	9(0.73)	6(1.15)	15(0.85)
Mother's education	No formal education	968(78.44)	439(84.26)	1,407(80.17)
	Primary school	150(12.16)	53(10.17)	203(11.57)
	Secondary school	84(6.81)	20(3.84)	104(5.93)
	College or above	32(2.59)	9(1.73)	41(2.34)
Father's education	No formal education	830(67.26)	342(65.64)	1,172(66.78)
	Primary school	184(14.91)	118(22.65)	302(17.21)
	Secondary school	103(8.35)	23(4.41)	126(7.18)
	College or above	117(9.48)	38(7.29)	155(8.83)

Reproductive and obstetric related characteristics

Of the total participants, 1439(82.01%) had no history of sexual intercourse. Among study participants who were sexually active, 309(97.78%) of them had first sexual intercourse at the age of 15 to 19. Forty-three (13.61%) of the study participants were pregnant during the data collection period and 29(11.84%) of them had a future intention to use contraceptives. Among the sexually active study participants, almost half did not have the pregnancy, but 93(29.43%) of them had children. Among those who had pregnancy 63(42.86%) have experienced abortion (Table 2).

Table 2 Characteristics of maternal and reproductive health of study adolescent women in Tigray, Northern Ethiopia, June 2018 (n=1,755).

Variables		**Intention to use contraceptive**		**Total (%)**
		Yes (%)	**No (%)**	
Ever had sex	Yes	245(19.85)	71(13.63)	316(18.01)
	No	989(80.15)	450(86.37)	1,439(81.99)
Age at first sexual intercourse (n=316)	12-14	7(2.86)	0(0.00)	7(2.22)
	15-19	238(97.14)	71(100.00)	309(97.78)
Ever had pregnancy (n=316)	Yes	109(44.49)	38(53.52)	147(46.52)
	No	136(55.51)	33(46.48)	169(53.48)
Number of pregnancy (n=147)	1	98(40.00)	30(42.25)	128(40.51)
	2	11(4.49)	8(11.27)	19(6.01)
Age at first pregnancy (n=147)	14	1(0.92)	-	1(0.68)
	15-19	108(99.08)	38(100.00)	146(99.32)
Current pregnant (n=316)	Yes	29(11.84)	14(19.72)	43(13.61)
	No	216(88.16)	57(80.28)	273(86.39)
Do you have children (n=147)	Yes	64(58.72)	29(76.32)	93(63.27)
	No	45 (41.28)	9(23.68)	54(36.73)
History of abortion(n=147)	Yes	43(39.45)	20(52.63)	63(42.86)
	No	66(60.55)	18(47.37)	84(57.14)
Number of abortion (n=63)	1	40(93.02)	15(75.00)	55(87.30)
	2	3(6.98)	4(20.00)	7(11.11)
	3	0(0.00)	1 (5.00)	1(1.59)

Knowledge and practice of contraceptive methods

About one in ten 172(9.80%) did not ever hear of contraceptives and among these 126(73.26%) had no future intention to use contraceptives. Of the total participants, 1,670(95.2%) had knowledge of the risk of unprotected sex and among those 1,177(95.4%) had reported the intention to use contraceptives. On the other hand, more than three-fourths of 1,353(77.1%) did not ever visit a health facility in the last year and among these 882(65.2%) had reported intention to use contraceptives in the near future. Of 402(22.91%) participants who visit a health facility in one year, 152(37.81%) had discussed contraceptives during their visit. About two in ten 316 (18%) had a sexual partner and 178(56.33%) knew their partners they are using a contraceptive method. Regarding the knowledge of contraceptive methods about 90% of adolescent women had knowledge of contraceptive methods. Injection (70.83%), pills (65.07%), condoms (49.40%), and Implants (37.95%) were the commonly known contraceptive methods. Two hundred thirty-six (13.5%) of adolescent women had fear of side effects of using contraceptives and 216(12.31%) of adolescent women were used contraceptives at least one time in their lifetime. Among users, 82(37.96%) had discontinued contraceptive use and from these, the most frequent reason for discontinuing was wanting more children 42.68% followed by side effects 33% (Table 3 and Figure 1).

p-ISSN: 2664-0775, e-ISSN: 2664-0783

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Table 3 Knowledge, perception and practice of modern contraceptives of adolescent women in Tigray, Northern Ethiopia, June 2018 (n=1,755).

Variables		Intention to use contraceptive		Total (%)
		Yes (%)	No (%)	
Ever hear contraceptives	Yes	1188(96.27)	395(75.82)	1583(90.20)
	No	46(3.73)	126(24.18)	172(9.80)
Previous contraceptive use	Yes	188(15.24)	28(5.37)	216(12.31)
	No	1,046(84.76)	493(94.63)	1,539(87.69)
Have you ever discontinued (n=216)	Yes	74(39.36)	8(28.57)	82(37.96)
	No	114(60.64)	20(71.43)	134(62.04)
Knows about risk of unprotected sex	Yes	1,177(95.38)	493(94.63)	1,670(95.16)
	No	57(4.62)	28(5.37)	85(4.84)
Know at least one modern contraceptive*	Yes	1185(96.03)	393(75.43)	1578(89.91)
	No	49(3.97)	128(24.57)	177(10.09)
Type of Modern contraceptives know (n=1578)	Injection	916(74.23)	327(62.76)	1243(78.77)
	Pills	851(68.96))	291(55.85)	1142(72.37)
	Condom	580(47.00)	287(55.09)	867(54.94)
	Implants	502(40.68)	164(31.48)	666(42.21)
	IUD	547(44.33)	81(15.55)	628(39.80)
	Other*	40(3.24)	5(0.96)	45(2.85)
Visit health facility in one year	Yes	352(28.53)	50(9.60)	402(22.91)
	No	882(71.47)	471(90.40)	1,353(77.09)
During the visit discuss about contraceptive (n=402)	Yes	140(39.77)	12(24.00)	152(37.81)
	No	212(60.23)	38(76.00)	250(62.19)
Your partner know you are using a contraceptive method (n=316)	Yes	146(59.59)	32(45.07)	178(56.33)
	No	99(40.41)	39(54.93)	138(43.67)
Ashamed to buy contraceptive	Yes	344(27.88)	256(51.06)	610(34.76)
	No	890(72.12)	255(48.94)	1,145(65.24)
Fear of side effect	Yes	149(12.07)	87(16.70)	236(13.45)
	No	1,085(87.93)	434(83.30)	1,519(86.55)

*Know at least one contraceptive methods (injection, pills, implanon five years, implanon three years, IUD, periodic abstinence, breastfeeding, female and male sterilization); ** Others: female sterilization, male sterilization, periodic abstinence and breastfeeding.

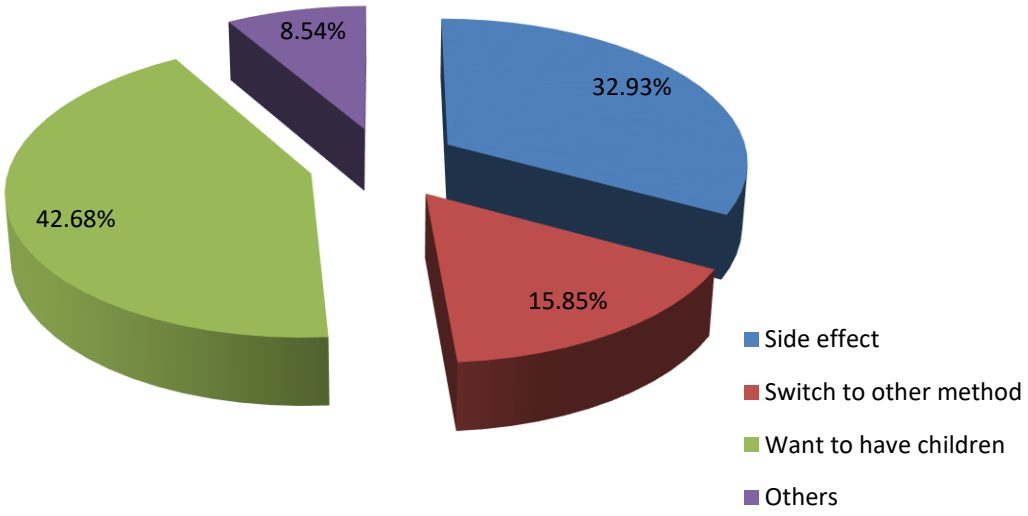

Figure 1 Reason for discontinuing contraceptives by adolescent women (n=216).

Determinants of intention to use contraceptive

In the bivariate logistic analysis, the variables age, education, residence, marital status, occupation, knowing at least one contraceptive method, ever had sex, mother's education, father's education and ashamed to buy contraceptive showed statistically significant association with intention of modern contraceptive use among adolescent women. In multivariable binary logistic regression, age, mother's education, knowing at least one contraceptive method, previous contraceptive used, ashamed to buy contraceptive and fear of side effects were found to have statistical significance with an intention to use contraceptive (Table 4). Adolescent women with a unit higher age had about 11% higher (AOR=1.11; 95% CI: 1.01-1.21) odds of intention to use

contraceptives in the near future than their lower counterparts. Adolescent women who had college or above education were 3.5 times more likely to intend to use contraceptives than those who had no formal education (AOR=3.53, 95% CI: 1.15-10.83). The adolescent women who knew at least one contraceptive method (AOR=4.73; 95% CI: 3.26-6.87) were more likely to have the intention to use contraceptives compared to their counterparts. Adolescent women who did not fear of side effects of contraceptives had 1.7 times (AOR=1.68; 95% CI: 1.22-2.33) higher odds of intention to use contraceptives than those who fear side effects. Similarly, adolescent women who did not ashamed to buy contraceptives had 2.5 times (AOR=2.54 95% CI: 2.01-3.21) higher odds of intention to use contraceptives use than those ashamed to buy contraceptives. Moreover, participants who had a previous history of contraceptive use were found to be about 2.7 times more likely to have the intention to use contraceptives compared to their counterparts (AOR = 2.66; 95% CI: 1.68-4.22).The receiver operating curve (ROC) analysis showed a very good accuracy in classifying the intension to use (area under the curve = 0.7656).

Table 4 Determinants of intention to use contraceptive among adolescent women in Tigray, Ethiopia, 2018.

Variables		COR	SE	*P*-value	95% CI	AOR	SE	*P*-value	95% CI
Age		1.41	0.052	<0.001	1.312-1.517	1.105	0.052	0.033	1.008-1.211
Educational	No formal education	1.00 (Ref.)				1.00 (Ref.)			
	Primary school	0.58	0.276	0.252	0.228-1.474	0.577	0.298	0.286	0.210-1.585
	Secondary school	1.77	0.839	0.231	0.697-4.481	1.380	0.709	0.531	0.504-3.776
	College and above	5.07	2.675	0.002	1.805-4.258	3.531	2.019	0.027	1.151-10.831
Know at least one modern contraceptive method	No	1.00 (Ref.)							
	Yes	7.88	1.40	<0.001	5.559-1.160	4.729	0.900	<0.001	3.257-6.868
Previous contraceptive use	No	1.00 (Ref.)				1.00 (Ref.)			
	Yes	3.17	0.664	<0.001	2.098-4.774	2.661	0.626	<0.001	1.678-4.219
Ashamed to buy contraceptive	Yes	1.00 (Ref.)				1.00 (Ref.)			
	No	2.699	0.292	<0.001	2.183-3.337	2.539	0.304	<0.001	2.007-3.211
Fear of side effect	Yes	1.00 (Ref.)				1.00 (Ref.)			
	No	1.460	0.214	0.010	1.096-1.945	1.683	0.279	0.002	1.216-2.329

Ref.: reference; COR: crude odds ratio; AOR: adjusted odds ratio; SE: standard error; CI: confidence interval

Discussion

Adolescent women are the most vulnerable to a range of reproductive health problems, such as unsafe abortion teenage pregnancy, and sexually transmitted infections (STIs). Improving the health of adolescents is essential to having a more successful and sustainable future. In the past 20 years, increasing access to contraceptive methods has reduced maternal and child mortality, but utilization of modern contraceptives is still low among adolescent women in Ethiopia[16]. Intention to use modern contraceptives appears to be the best predictor of actual contraceptive practice[29].This study aimed to assess the intention to use contraceptives and their associated factors among adolescent women (15-19 years) in Tigray, Ethiopia.

The results showed that the prevalence of intention to use modern contraceptives was 70.3%, which seemed a promising result for the actual use. This is in line with a study conducted in Ghana that has found a 69.3% magnitude of the intention to use[29]. Similarly, the intention to use modern contraceptives is slightly higher among adolescents from urban areas, which is 72.3%. This shows that adolescents from urban areas have a disproportionately higher intention to use modern contraceptives. This finding is not uncommon in other studies from Ethiopian towns[22, 33]. However, it is lower than a study conducted in another Ethiopian town (Aksum) (84.3%)[23], and Ghana (94%)[36]. A possible explanation for the observed discrepancy can be attributed to the differences in the composition of study participants and socio-demographic characteristics. Aksum and Ghana studies were conducted among postpartum women. The higher magnitude of intention to use contraception in Aksum

town and Ghana can be explained in terms of better availability, accessibility, and improved infrastructure. It is obvious that studies conducted in major towns of Ethiopia have better access to information and education as a result their intention to use modern contraceptives would be better.

The high magnitude of intention to use modern contraceptives in this study, in which three-fourths of the adolescents have the intention to use, indicates that the actual use of modern contraceptives can be improved if the adolescents received proper education on the modern methods of contraceptives. Improved use of contraceptives means a reduction in the risk of acquiring unwanted pregnancies, unsafe abortion, STIs, and HIV/AIDS[29]. To improve the use of modern contraceptives, health education on modern contraceptives should be provided at schools and where adolescents gathered.

In the present study, the majority of adolescent women had good knowledge of contraceptive methods. The common methods mentioned by the adolescents were injection (71%), pills (65%), condoms (49%), and intrauterine devices (36%). This result corroborates with previously documented findings[16, 23]. As knowledge is a potential predictor to practice, the findings show the possibilities of improving the behavior of modern contraceptive use among adolescents.

In the current study, the multivariable binary logistic regression model showed that age, level of education, knew at least one contraceptive method, previous contraceptive use, shyness to buy contraceptives and fear of side effects were found significantly associated with the intention to use of modern contraceptive. An increase in the age of adolescent women is associated with a higher intention to use modern contraceptives in the future. This

finding is disagreeing with the analysis done in Ethiopia using the EDHS 2011 and a study from Malawi [25, 37]. A possible explanation for the difference in the findings could be in the composition of study participants. In these studies, the study participants were all women, and the reduced contraceptive use among older women may be related to the fact that they had reduced their coital frequency, and some of them were near menopause.

The multivariable analysis also showed that adolescent women who had college or above educational level had higher odds of intention to use modern contraceptives in the near future than those with no formal education. The finding was similar to studies conducted in Ethiopia[22, 30, 32, 38].They showed that married women with higher education were more likely to have an intention to use modern contraceptives. This highlights the importance of education to improve modern contraceptive use.

The current study revealed that adolescent women who knew at least one contraceptive method have a positive association with the intention to use contraceptive methods compared to those who did not know any methods of contraceptive. This is in line with previous studies conducted in Aksum town and Adigrat town[23, 24]. This highlights the importance of knowledge in contraception methods, which in turn contributes to the use of modern contraceptives among adolescent women. Furthermore, the results from the multivariable analysis on intention to use modern contraceptives among adolescent women have a positive association in adolescents who do not have the experience of fear of side effects of contraceptives and who do not feel shy to buy contraceptives.

Conclusion

Our results showed that 70% of adolescent women had the intention to use modern

contraceptives in the near future. The factors associated with the intention to use modern contraceptive methods were age, education, knowing at least one contraceptive, shyness to buy contraceptives andfear of side effects. In order to increase the intention and use of contraceptives among adolescent women, the family planning services providers and programmers should emphasize reducing the barriers to intention to use contraceptives such as lack of knowledge, and strengthen the promotion of contraceptive methods through media.

Abbreviations

UN: United Nation; UNFPA: United Nations Population Fund; FP: family planning; EDHS: Ethiopian Demographic and Health Surveys; STI: sexual transmitted infections; AOR: Adjusted odds ratio; CI: Confidence interval; VIF: variance inflation factor.

Data Sharing Statement

The dataset supporting this finding can be obtained from the corresponding author upon request.

Ethics

The study was approved by the research ethics review committee of College of Health Sciences, Mekelle University. Data was collected after obtaining oral consent from parents and participants. Confidentiality of individual information was recorded anonymously and assured throughout the study period.

Disclosure

The authors declare that they have no competing interests.

Funding

No funding was obtained for this study.

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