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Knowledge, attitude and practice of contraception among female students of Dilla secondary and preparatory school, Dilla town, Gedeo zone, Ethiopia, 2019

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Abbreviations: CBE: Community Based Education; CORHA: Consortium Of Reproductive Health Associations; DU: Dilla University; EDHS: Ethiopian Demographic Health Survey; FP: Family Planning; HIV: Human Immunodeficiency Virus; IUD: Intra Uterine Device; KAP: Knowledge, Attitude and Practice; MOH: Ministry Of Health; OCP: Oral Contraceptive Pills; PI: Principal Investigator; SRP: Student Research Project; SNNPRS: Southern Nations, Nationalities and Peoples Regional State; SNNPRHB: Southern Nations, Nationalities and Peoples Regional Health Bureau; RH: Reproductive Health; STI: Sexually Transmitted Infections; WHO: World Health Organization.

Abstract

Back ground: Family planning is recognized not only as an important intervention to improve the health of women and children, but also as a human right. The basis of action in family planning should allow individuals to freely and responsibly adhere to and determine the number and spacing of their children. The use of modern family planning depends on the place of residence and region. 25% of currently married women between the ages of 15 and 49 are using the latest methods of family planning at SNNPRG. The use of modern contraceptives increases with education. 57% of married women with secondary education and above use modern methods compared to 22% of uneducated married women.

Objectives: The general objective of this study is to assess the current knowledge, attitude and practice of contraception among female students in Dilla secondary and preparatory school, Dilla town, Ethiopia.

Methods: From May to June 2019, a cross-sectional study was conducted at Dila Middle School and Preparatory School in Dilla Town, Ethiopia. This study included a total of 263 study subjects. The data were collected by the Principal Investigator using a self-administered questionnaire. The data was analyzed by SPSS20.

Result: Of the 263 students surveyed, 249 (94.7%) have knowledge of contraceptives. The three most commonly identified methods were injectable form (83.9%), OCP (72.7%), and condoms (48.6%). A total of 15.7% of those questioned stated that they had ever used contraceptives, 55.4% of them OCP, 23.1% depot and 10.2% condoms. The most common reason for students not using contraception was cultural (46.5%), followed by religion (27.6%) and lack of knowledge about contraceptives (23.7%).

Conclusions and recommendations: Although most interviewees have a good knowledge; their attitudes and practices are very low. It is recommended to carry out contraceptive education in Dilla Middle School and Preparatory School, and to educate the community on contraceptive methods in gathering areas such as mosques, churches.

Keywords: Knowledge; Attitude; Practice; Contraception; Female high school students.

Introduction

Back ground information

The world population is currently growing by over 80 million people annually. Such a change is unprecedented. It was not until 1800 that the total population of the world reached one billion. In the past 50 years, the decline in death rates and persistently high birth rates in developing countries have added more people to the world population than in the previous 4 million years [1]. According to the UN projects, over eight billion people will be living worldwide by 2025, 6.8 billion of them in developing countries [1,2]. Young women face strong social pressures to marry early and have children; more than half of women give birth by the age of 20, a proportion that has remained largely unchanged over the years. This shortens the time interval between generations, contributing to an increase in population and high rates of population growth [3]. Family planning is recognized not only as a key intervention for improving women's health, but also as a human right. The framework for action in family planning should allow couples and individuals to freely and responsibly determine the number of children and the intervals between their births [4]. Between 8 and 30 million unplanned pregnancies occur among people who use contraception each year [5]. If a programmer could satisfy all the existing needs for acceptable family planning among sexually active people, regardless of marital status, about half a billion women and men could effectively and safely plan their family size [5].

Statement of the problem

Family planning methods save women's lives by preventing unwanted pregnancies. Slow population growth can save resources and improve health and living standards. Despite the introduction of modern contraceptives, accidental or unintended pregnancies are still a major problem worldwide. According to the 1995 National Family Growth Survey, there were 6.3 million pregnancies in the United States, of which 49.2% were unwanted pregnancies. Among unintended pregnancies, nearly half lead to termination of pregnancy, and more than 10% lead to spontaneous abortion, which is a considerable waste of pregnancy. Unexpected and unplanned pregnancies have social and economic consequences; they also have a major impact on public health. Approximately 40% of unintended pregnancies occur in women who do not want to become pregnant but do not use contraceptive methods. About 60% of unwanted pregnancies occur in women using some form of birth control. These data suggest that many women and couples are not motivated enough to use contraception, that side effects can be problematic for some, that access can be a problem for others, or that some methods may be difficult for women to use [21], or other local and personal reasons. Every time a woman becomes pregnant in one of the poorest countries in the world, her risk of dying from pregnancy is 200 times higher than the risk for women in the US or Europe. The probability of death of an African woman from pregnancy-related causes: labor, postpartum bleeding, pregnancy-induced high blood pressure, postpartum infections and unsafe abortions averages 870 per 100,000 live births compared to 27 per 100,000 live births in developed countries [6]. Unwanted pregnancies pose a major challenge to the reproductive health of young adults in developing countries. Some women with unwanted pregnancies do have abortions - many of them performed in unsafe conditions and others terminate their pregnancies, which are at higher than risk of morbidity and mortality adult women [6]. Just providing contraceptives to women who feel like it could reduce maternal mortality by up to a third. It is estimated that 100,000 maternal deaths could be avoided each year if all women who said they no longer wanted to have children could stop giving birth [7]. Approximately 3.7 million unsafe abortions are performed in sub-Saharan Africa each year and approximately 23,000 African women die from these complications. East African women have the highest lifetime risk of maternal death 1 in 12 versus 1 in 3,700 women in North America [9]. Many low-income countries are caught in a vicious circle: efforts to improve living standards and reduce poverty are being stifled by the need to provide basic services and jobs for growing numbers of people. For this reason, the provision of family planning services has become the preferred intervention to slow this population explosion [8]. Ethiopia is one of the most populous countries in Africa, second only to Nigeria. Ethiopia's population was estimated in November 2007 to be 77 million, compared to 60 million in 1999 and 11.8 million in 1900, when by 1960 the population growth rate was only 0.3 % [9]. One of the main goals of family planning is to make every child a desirable child. Some of the benefits of using contraception are to save women's lives, the lives of children, provide women with more choices, encourage safer sexual behavior, and slow population growth. Today, health institutions across the country provide many contraceptive methods, but their use is still limited. According to data from the Ethiopian Ministry of Homeland Security, the contraceptive prevalence rate (any method, currently married) was 1990 (5%), 2000 (8%), and 2011 (29%). The most commonly used contraceptives are long-acting contraceptives (22%), OCP and implants (3%), and IUCD (2%). There are many reasons for the low contraceptive prevalence rate, which requires in-depth research. If the cause can be identified, it can be easily designed and implemented to reduce the impact of not using contraceptives. For various reasons, this problem is more serious among young people. Rendering to the study done on KAP of family planning methods and other RH including HIV/AIDS among school adolescents in seven town (Nekemte, ambo, Asella, Debrebirhan, Debre Markos, Dessie and Mekele), a total of 3861 respondents (1823 males and 2038 females) aged 10-19 years in grade 7-12 showed that most of the sexually exercised school adolescents didn't use contraceptive [17]. So this study assessed the current knowledge, attitude, and practice of contraception among female students of Dilla secondary and preparatory school.

Methodology

Study design, area, and period

Cross sectional study design was conducted in Dilla town. Dilla is a capital city of Gedeo zone, SNNPR about 359 KM from Addis Ababa and 90 Kms from Hawassa. Dilla secondary and preparatory school is established in 1964 E.C and start teaching in 1965 E.C. Currently, it serves a total of 2920 students of grade 9 – 12, among them 1516 are female students and the rest 1404 are male students studying in a total of 33 section classes. The school occupies a total of 95 teachers, among them 18 are females. The study was conducted from May to June 2019.

Sampling technique and sample size determination

A stratified sampling method was used with random selection of a pre-determined volume of study units from each stratum (class sections under 9th-12th grades of Dilla High School and Middle School girls); First, the sample size was divided into grades (ninth, tenth, eleventh, twelfth) in proportion to the size of the females in each of them. The sample size collected for each score was then divided equally into sections under each score in proportion. A simple random sampling method was used to select participants from the lists (after making separate lists from the class rosters).

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

N= Z2 pq, where: D = margin of error(5% = 0.05)

D2 P = Prevalence rate of contraceptive use (29% in 2011 according to EDHS, 2011) = 0.29

Q= 1-p = 0.71

Z=confidence level (95% = 1.96)

Sample size was:

$ni = \frac{z^2 p q}{d^2} = \frac{(1.96)^2 (0.29)(0.71)}{(0.05)^2} = 316.4$ n = Minimal sample size

Since the population is < 10,000, so the corrected sample size was:

$nf = \frac{ni}{1 + (n/N)}$ Where: nf = final sample size

N= total no of female students in the Dilla secondary and preparatory school = 1516

$nf = \frac{316.4}{1 + \frac{316.4}{1516}} = 261.77$

Considering non response rate = 10% = 26.17

Therefore the sample size used is: 288

Data collection process

Data was collected by the Principal investigator using self-administered questionnaire by distributing to the respondents, explain about the objectives of the study and the way how they can answer each question; after informed consent was taken. Then the filled questionnaire was collected and completeness was checked.

Data quality assurance and pretest

The questions were prepared in English and translated into Amharic by a neutral translator. Before the actual data collection, Questionnaires were pretested for completeness and appropriateness to the local context on 10% of similar population of the sample size.

Data analysis and presentation

Data was cleared, edited, and compiled manually and then entered, checked and analyzed based on the set of variables using SPSS 20. Descriptive statistics and chi-square tests were used and significance of tests were decided at P<0.05. The results were presented using tables, pie charts and graphs.

Ethical consideration

The official letter was written by DU. Informed consent was taken from all students prior to data collection after obtaining permission from the school's dean and school administrator. In addition to this, accountability and neutrality were kept secret throughout the study by repeatedly explaining the purpose of the study and answering student questions.

Table 1: Shows Socio-Demographic Characteristics of Female Students of Dilla Secondary and Preparatory School, Dilla town, June 2019.

Variables	No. (n = 263)	percent
Age group/years		
14-16	21	8.0%
17-19	196	74.5%
20-22	46	17.5%
Total	263	100%
Religion		
Orthodox	172	65.4%
Protestant	75	28.5%
Muslim	9	3.4%
Catholic	7	2.7%
Total	263	100%
Ethnicity		
Gedeo	170	64.6%
Amhara	41	15.6%
Oromo	19	7.2%
Tigre	7	2.7%
Sidama	12	4.6%
Gurage	11	4.2%
Other(Hadya, Kanpata)	3	1.1%
Total	263	100%
Marital status		
Single	248	94.3%
Married	15	5.7%
Divorced	0	0.0%
Widowed	0	0.0%
Total	263	100%
Grade		
9th	119	45.2%
10th	42	16.0%
11th	75	28.5%
12th	27	10.3%
Total	263	100%

Results

Socio-demographic characteristics of female students

From the calculated sample size of 288, 263 female students were found to be correct and were included in the analysis making the overall response rate 91.3%. The subjects' ages ranged from 14 to 22 years with a mean age of 19. Among the 263

respondents, 248 (94.3%) were unmarried and 15 (5.7%) were married. The majority of students 172(65.4%) were orthodox in religion followed by protestant 75(28.5%) religion followers (Table 1) Among the studied female students, 170(64.6%) were Gedeo in ethnicity followed by Amahara 41(15.6%) by ethnicity (Table 1). Out of 263 students, 119(45.2%) of the study subjects were in grade 9th and 75(28.5%) were in grade 11th, the rest are in grades 10th and 12th (Table 1).

Contraceptive knowledge of the respondents

As shown in Table 2, 249 (94.7%) of students have heard about contraceptives. All of them correctly identified at least one contraceptive method from the list of items. The three most frequently identified methods were injectable form 209 (83.9%) followed by oral contraceptive pills 181 (72.7%) and condom 121 (48.6%) Table 2.

Table 2: Shows Knowledge of Methods of Contraceptive among Female Students of Dilla Secondary and Preparatory School, Dilla town, July 2014.

Variable	No.	Percent
Heard contraceptive	(n = 263)	
Yes	249	94.7%
No	14	5.3%
Method known	(n = 249)	
Injectable	209	83.9%
Oral pills	181	72.7%
Condom	121	48.6%
Calendar(Rhythm)	99	39.8%
Coitus interrupts	94	37.7%
Loop (IUCD)	83	33.3%
Norplant	49	19.7%
Tubal ligation	71	28.5%
Breast feeding	47	18.9%

The sources of contraceptive knowledge are television 104 (41.8%), radio 54 (21.7%) and teachers 49(19.7%) Table 3, About emergency contraceptives 175 people (70.3%) have heard of emergency contraceptives (Figure 1). Women who had heard of contraceptives were further asked about the importance of contraceptives. It was found that 191 (76.7%) answered that contraceptives were used to prevent unintended pregnancy, 209 (83.9%) were used for restricted or spaced childbirth, and 48 were (19.3%). Answer to prevent sexually transmitted diseases is in Table 4.

Table 3: Source of Contraceptive Knowledge in Dilla Secondary and Preparatory School Female Students, Dilla Town, June, 2019.

Source of contraceptive knowledge	No. (n = 249)	Percent
TV	104	41.8%
Radio	54	21.7%
Teacher	49	19.7%
Friends	40	16.1%
Health worker	24	9.6%
Books	18	7.2%
Magazines	11	4.4%
Other (posters, leaflets, bulletins)	4	1.6%

Table 4: Percentage of female students in Dilla Secondary and Preparatory School by Their Knowledge about Importance of Contraceptive, Dilla Town, 2019.

Importance Of Contraceptive	No. (n = 249)	Percent
Prevent Unwanted Pregnancy	191	76.7%
Prevent STD	48	19.3%
Limit/space child birth	209	83.9%
Treat pain associated with menstruation	28	11.2%
Prevent abortion complications	12	4.8%

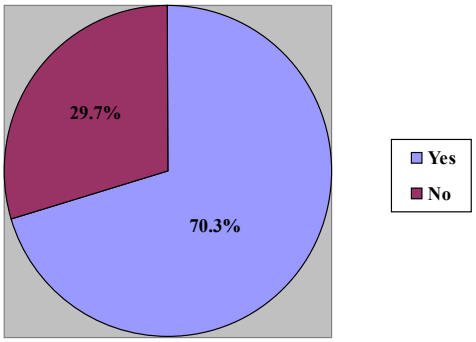

Figure 1: Distribution of Respondents by their Knowledge of Emergency Contraceptive Among Female Students of Dilla Secondary and Preparatory School, Dilla Town, July 2014.

Attitude towards contraception

Questions were asked to assess the presence of female positive (good) or unfavorable (bad) attitudes towards contraception. Students were then classified as having a good or bad attitude towards contraception. Based on this from 249 students who heard about contraception, 178 (71.5%) have a positive (good) attitude towards contraception. Among these students, 111 (63.4%) Orthodox Christians, 56 (31.5%) are protesters, 6 (3.4%) are Catholic, and 5 (2.8%) Muslim students have good attitude towards contraceptive. Has shown that Christian students have a positive attitude towards contraception. This study shows that there is a statistically significant relationship between student religion and attitudes towards contraception (Table 6). In different ethnic groups, there were Gedeo female students 131 (73.6%), 13 Oromo (7.3%), 16 Amahara (9.0%), 9 Sidama (5.1%), and 7 Gurage (3.9%). %) And 2 Tigrayans (1.1%), have a positive attitude towards contraceptives (Table 7).

Table 5: Contraceptive Usage of Dilla Secondary and Preparatory School Female Students, Dilla Town, June 2019.

Practice		No. (n = 249)	%
Ever used contraceptive method	Yes	39	15.7%
	No	210	84.3%
Type used	OCP	22	56.4%
	Injectable (Depo)	9	23.1%
	Condom	4	10.2%
	Calendar(rhythm)	2	5.1%
	Coitus interrupts	1	2.6%
	Norplant	1	2.6%
	Total	39	100%

Table 6: Contraceptive Knowledge, Attitude and Practice in Different Religious Groups of Dilla Secondary and Preparatory School Female Students, Dilla Town, June 2019.

Religion	KAP of contraceptive					
	Knowledge		Attitude		Practice	
	Yes	No	Yes	No	Yes	No
	No. %	No. %	No. %	No. %	No. %	No. %
Orthodox	162 (94.2)	10 (5.8)	111 (64.5)	61 (35.5)	19 (11.0)	153 (89.0)
Protestant	73 (97.3)	2 (2.7)	56 (74.7)	19 (25.3)	15 (20.0)	60 (80.0)
Muslim	9 (100)	0 (0.0)	5 (55.6)	4 (44.4)	3 (33.3)	6 (66.7)
Catholic	5 (71.4)	2 (28.6)	6 (85.7)	1 (14.3)	2 (28.6)	5 (71.4)
Significant test	X^2 = 8.32 P = 0.04		X^2 = 13.66 P = 0.034		X^2 = 3.19 P = 0.36	

Table 7: Contraceptive Knowledge, Attitude and Practice in Different Ethnic Group of Dilla Secondary and Preparatory School Female Student, June 2019.

Ethnicity	KAP of Contraceptive					
	Knowledge		Attitude		Practice	
	Yes	No	Yes	No	Yes	No
	No. %	No. %	No. %	No. %	No. %	No. %
Oromo	19 (100)	0 (0.0)	13 (68.4)	6 (31.6)	7 (33.3)	12 (66.7)
Amahara	38 (92.7)	3 (7.3)	16 (39.0)	25 (61.0)	5 (30)	36 (70)
Sidama	12 (100)	0 (0.0)	9 (75.0)	3 (25.0)	3 (12.5)	9 (87.5)
Gedeo	164 (96.5)	6 (3.5)	131 (77.1)	39 (22.9)	14 (5.3)	156 (94.7)
Gurage	10 (90.9)	1 (9.1)	7 (63.6)	4 (36.4)	6 (54.5)	5 (45.5)
Tigre	6 (85.7)	1 (14.3)	2 (28.6)	5 (71.4)	4 (57.1)	3 (42.9)
Other	0 (0.0)	3 (100)	0 (0.0)	3 (100)	0 (0.0)	3 (100)
Significant test	X^2 = 1.763 P = 0.34		X^2 = 9.028 P = 0.34		X^2 = 4.13 P= 0.383	

Table 8: Contraceptive Knowledge, Attitude and Practice According to Marital Status of Dilla Secondary and Preparatory School Female Students, June 2019.

Marital status	KAP of Contraceptive					
	Knowledge		Attitude		Practice	
	Yes	No	Yes	No	Yes	No
	No. %	No. %	No. %	No. %	No. %	No. %
Single	234 (94.4)	14 (5.6)	166 (66.9)	82 (33.1)	26 (10.5)	222 (89.5)
Ever Married	15 (100)	0 (0.0)	12 (80.0)	3 (20.0)	13 (86.7)	2 (13.3)
Significant test	X^2 =0.42 P = 0.517		X^2 = 2.44 P = 0.118		X^2 = 110 P = 0.000	

Contraceptive practice

A total of 39 (15.7%) respondents said they had ever used a method of contraception. Respondents were between 18 and 22 years old and all respondents who used contraceptives were eleventh and twelfth graders. Among those who practiced contraception were 19 (48.7%) Orthodox, 15 (38.5%) Protestant, 3 (7.7%) Muslims, and 2 (5.1%) were Catholic students. Of 39 students who practiced contraceptive 26 (66.7%) were unmarried and 13 (33.3%) were ever married. The study shows a statistical significant relationship between marital status of the students and contraceptive use (Table 8). The commonly used contraceptive method is pills 22 (56.4%) followed by depot Provera 9(23.1%) and condom 4(10.2%) Table5. Thirty four (87.2%) contraceptive user students said they got contraceptive from pharmacy / drug vender, 5(12.8%) from private clinics, 3 (7.7%) from government health institution and 3 (7.7%) students got from shops/supermarket Figure 2. Among non users, 46.5% were not using it for cultural reason and 27.6% due to religion, 23.7% because of lack of knowledge, and 16.7% due to fear of side effects (Figure 3).

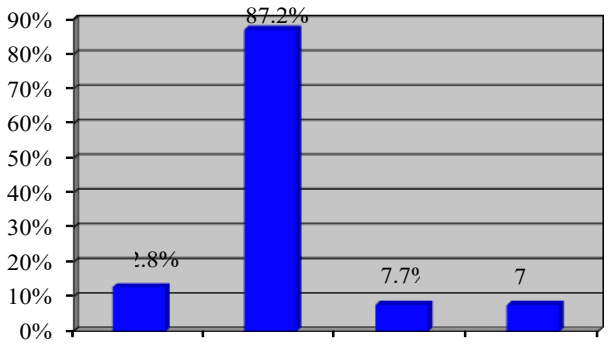

Figure 2: Distribution of Respondents by Source of Contraceptive Used Among Dilla Secondary and Preparatory School, Dilla Town, July 2019.

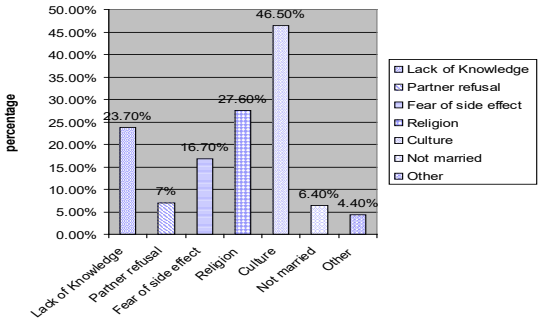

Figure 3: Distribution of Respondents by their Reason for not Using Contraceptive in Dilla Secondary and Preparatory School, Dilla Town, June 2019.

Discussion

This study shows that about 94.7% of respondents knew about contraceptive methods. This result is consistent with a reported level of knowledge of contraception in adolescents of 93–98% [22-25]. However, this result is higher than that of students from other urban centers of the country, where the level of knowledge in the field of contraception ranges from 54% in Harare [26] to 75-83% in Northern Gondar. This level is also comparable to that of adolescents about contraception in the Middle East Asia, North Africa, the Caribbean, and Latin America, where adolescent knowledge of contraception was above 90% [28]. This may be due to the wider dissemination of information and communication that school teens can be, the influence of the media, greater student awareness than before, and greater government commitment The most well-known methods reported in various studies are OCP, injection and condom, similarly the findings of this study complement this. In terms of emergency contraception, 70.3% of the participants in our study had heard of emergency contraception. A study from an undergraduate degree in Nigeria found that 58% knew about emergency contraception [32]. A study from the AAU found that 43.3% had heard of emergency contraception [33]. The result of our research is comparable, but higher; the difference may be related to differences in the study population and the time elapsed between studies. Contraceptive use in this study is 15.7%. A study from North Gondar found that contraceptive use was 30.7% [30]. A study in Harare found that contraceptive use is 20% [26]. Potential reasons for this difference could be negative attitudes towards contraceptive use for

religious and cultural reasons, as well as differences in the study population. The main source of contraceptive information in this study is television (41.8%). The source of information for North Gondar was 23.8%, which was television [30]. The value of this study is higher. This may be due to the increasing number of televisions in each household over time, as the government's viewing habits and emphasis have increased through various fascinating announcements and shows on television. I have the main source of contraceptives in this study is pharmacies / pharmacies, which account for 87.2%. A study conducted on Jimma's urban population showed 98.96% from clinics and pharmacies [31]. This may be a change in the population under study. A study conducted in Northern Gondar showed that condoms used contraceptives were 60.8% and pills were 39.2% [30]. This is comparable to our study, but our results are low with condom use (10.2%) and high with OCP (56.4%). This may be due to fluctuations in the characteristics of the population under investigation. Among those who did not use contraceptive methods in this study; 46.5% did not use it for cultural reasons, 27.6% used it for religious reasons, and 23.7% due to lack of knowledge. I didn't use it for. According to a survey conducted in North Gondar, the majority of non-users did not use it due to lack of knowledge and access to services [30]. This may be the difference between the population under study and the changes that appear after the study.

Limitations of the study

- Only female students were selected for the study and this may not represent the use of male condoms by male students.
- The proportionality of the sampling to each grade was made difficult during data collection because grades 10th and 12th students were on preparation of the national exam, so not all students of these grades were available during data collection.
- This study is the institution based study didn't consider adolescents out of school for their KAP on modern contraceptives.
- Study design effect as it is cross – sectional can't assess cause effect relationship.

Conclusion

This study shows that most students are aware of contraception. The dominant methods known to students are injection, OCP and condoms, but the most popular method used by student users is OCP. Older adolescents (ages 18-22) and senior grades (11 and 12 students) have ever used contraception methods than younger and younger grades. Television, radio and teachers are proving to be the most important sources of information for promoting contraceptive use. There is a connection between religion and knowledge of contraception. There is also a connection between religion and attitudes towards contraception. It was found that marital status is associated with a higher level of contraceptive use. Among non-users, most of the respondents did not practice for religious and cultural reasons and did not know. Most women are supportive of contraception. Most students hear about emergency contraception.

References

1. The State of the World population 1996, New York, UNFPA. 1996; 5-6.
2. United Nations population fund (UNFPA): Population. Issues Briefing kits 1996. New York. 1996; 2-24.
3. James Rosen ShantiR. Couly: Africans population challenge: Accelerating progress In Reproductive Heath, Country study series Number. 1998; 4: 1-7
4. WHO (FRH) improving access to quality cares in FP, Geneva. 1996; 1-3.
5. Family guidance Association of Ethiopia Special Issue commemorating the 20th anniversary of FGAE, Addis Ababa. 1986.
6. Ethiopian linkage b/n population and economy Nov. 5th, 2007 http://www Ethiopian population, com USA. 1999.
7. WHO family planning and practice: Africa, 2nd Edition, USA, 1999.
8. WHO community based distribution of contraceptive a guide for program manager, Geneva, 1995.
9. World Bank 1993 Effective, Family Planning programs, Washington DC.
10. Population reports, The reproductive Revolutions; Series M. xx: 15
11. WHO Reproductive health research, selected practice recommendation for contraceptive use, Geneva, 2002.
12. WHO challenges in reproductive Health Research Biannual Report, Geneva. 1992-1993.
13. Population reports, meeting demand for family planning series J. 1999; xxvll: 1-6.
14. World health organization, world Health day, safe motherhood. 1998.
15. Central statistical Authority, Ethiopian Demographic Health Survey. 2005.
16. Marie stopes international- KAP towards RH/FP and HIV/AIDS among in School adolescents in seven towns of Ethiopia, Marie stop international, Ethiopia. 2005.
17. Birhan Research and Development consultancy KAP on family planning in Amhare. Oromia, SNNPR and Tigray regions path finder international (Ethiopia) 2004.
18. Yigzaw Kebede, contraceptive prevalence and associated with usage of contraceptive around Gonder Town, Ethiopian Journal of health development, Ethiopian public health association. 2000; 14: 327.
19. Nigussie Taffa , Sexual activities of out of school youth and their knowledge and attitude about STIS and HIV/AIDS in South Ethiopia, EJHD. 1998; 12: 17-23.
20. Solomon worku, prevalence of unintended pregnancy and / or child birth, and its determinants in Harar town, MPH thesis AAU, Ethiopia. 2002.
21. Seifu Mengistu -Assessment of level of Awareness and emergency contraceptive among college female students in Oromia region, Arsi Zone, Asela, South East of Ethiopia, CORHA, 2007.
22. Govindamsamy, pav, Aklilu Kidanu and Hailom Banteyerga. Youth reproductive health in Ethiopia, calverton, Maryland ORC Marco. 2002; 1-59.
23. Frihiwot Birehane. Health Problems and Service preferences of school adolescents of Addis Ababa with emphasis on Reproductive Health. MPH thesis, AAU 2000.
24. Eyob Tadesse, Abate Gonfa and Genet Mengistu Survey of adolescent reproductive health in the city of Addis Ababa EJHD.

1996; 10: 35-39.

25. Samson Kasahun Sexual behavior, Contraceptive practice and knowledge of AIDS of High school students in Addis Ababa, MSC thesis in Demography AAU, 1997.

26. Filmona Bisrat. High school student KAP of contraceptive in Harar town Eastern Ethiopia. EJHD 1994; 32: 151-160.

27. Shabbir Ismael, Habteab Besuamlak and kahsu Alemu. High risk sexual behavior for STI/HIV, pregnancy and contraceptives among high school students in rural town north Ethiopia. EJHD. 1997; 11: 29-36.

28. Sushila Sigh and Dlidre Kluif. The likelihood of induced abortion among women hospitalize for abortion complication in four Latin American countries. International family planning perspective. 1993; 19m: 134-141.

29. Messganaw Fantahun, Fekadu chla, Mesten hoha knowledge, attitude and prachce of family planning among senior high school students in North Gonder Ethiopia. Med. J. 1995; 3321-3329.

30. Shiferaw M. Determinate of contraceptive use in Jimma herbal population, south West Ethiopia, Family Guidanle association of Ethiopia. 1990.

31. MARGE SKOBLNSKY. The health of women, a global perspective. Boulder. Sanfracisco and Oxford. 1993.

32. MARGE and KOBLINSKY. The health of women, a Global perspective. Boulder, Sanfrancisco, and Oxford, 1993.

33. Wegene Tamire, Fikre Enquselassie. Knowledge, attitude and practice on EC among female students at higher education in AA. 2005.