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Contraceptive prevalence and factors associated with usage of contraceptives around Gondar Town

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Abstact

This community-based cross-sectional study was carried out to assess the knowledge, attitude, and practice (KAP) of women 15-49 years old and their husbands on contraception in Gondar Town and the surrounding ten peasant associations. Peasant associations, households, and study subjects were selected randomly. Women 15-49 years old and husbands (if the woman is married) of the selected women were the study subjects. A pre-tested Amharic questionnaire was used for data collection. A total of 1379 (782 female and 597 male) individuals had responded for the study. Ninety nine percent of the total respondents believe that family planning is important. Most of them had information about family planning, 74.9% and 77.4% of the female and male respondents,respectively. About 72% of the female respondents and 36.6% of the male respondents knew more than one method of family planning. The overall modern contraceptive prevalence rate was 28.6%(35.5% urban and 11% rural). Modern Contraceptive prevalence among married women was 32.1%. Injectable contraceptives were used by 39.7% of the females and 69.6% of the males had positive attitude towards future use of contraceptives. Rural residents, women 15-19 years old, illiterates, divorced or widowed women, and women who earn low income were found at higher risk of not using modern contraceptives. The results of this study are discussed in the text. Efforts should continue to further increase the contraceptive coverage, especially by training adequate number of CBD agents to reach the rural community.

Introduction

The world is in the midst of a dramatic expansion in population and it may be overburdened by its success: the decline in death rates, and the continued high birth rates in developing countries result in rapid population growth. World-wide, population growth has declined from its historic peak of 2.1% per year in the late 1960s to1.7% today. However there is still great variation in the extent and pace of that decline for individual countries (1).

To date, only a handful of countries have reduced fertility rates enough to make gains as a result of reduced fertility, or to ensure that their populations will stabilize in the foreseeable future. Sub-Saharan Africa faces the highest fertility and population growth rates in the world (2).

Family planning has played an important role in reducing fertility throughout the world. Unmet need exists to varying degrees in virtually every developing country. This gap results from inadequate access to, or knowledge of family planning methods, even where programs already exist. According to data from the World Fertility Survey (1974-1984), 40-50% of the

reproductive age in 18 developing countries desires no more children but have no access to family planning services (2). Family planning is also an important tool in the strategy to lower maternal deaths by spacing or preventing pregnancy. Family planning could bring more benefits to more people at low cost than any other technology now available to the human race. Studies in Ethiopia show that 30% of the pregnancies are unwanted. This indicates an enormous unmet need for family planning (3).

In Ethiopia contraceptive prevalence rates of 4.1-39% were reported in different parts of the country (4,5,6,7,8,9). Previously, contra-ceptive use was seen to be higher among urban residents, people who had permanent jobs, better-educated ones, and among people with larger family sizes (7,9). Even though similar studies were done in the past, the objective of this study was to see changes in family planning with regard to knowledge, attitude, and practice. Factors associated with contraceptive usage were also assessed in this study. In contrast to most of the previous studies, this study included the males.

Methods

The study utilized a community-based cross-sectional study design, which was conducted in March 1999 in Gondar Town and the surrounding peasant associations. The total population of Gondar Town was about 126,768 and that of the surrounding 10 peasant associations was 42,176. The government health institutions, in Gondar Town are the Gondar College of Medical Sciences (G.C.M.S) Hospital, Gondar Health Centre, Cherkos Health Station, and Azezo Health station. Only one health station (Shembekit) is found in the surrounding peasant associations. The family Guidance Association of Ethiopia (FGAE), and GTZ are also giving family planning services in Gondar Town (Gondar Woreda Health Office).

The independent variables were different socio-demographic variables like religion, ethnicity, address, income, age, educational status, occupation, and marital status. The dependent variables were knowledge, attitude, and usage of contraceptives.

In order to get maximum sample size and increase the precision, a contraceptive prevalence rate of 50%, 3.5%margin of error, and confidence level of 95% were considered.
Based on this assumption, a total of 1200 study subjects (900 from urban and 300 from rural areas) were required for this study. Study subjects from urban and rural areas were selected proportionally to their population sizes. In 1994, out of the total females age 10 years and over in the Amhara Region, 53% were married (10). Based on this assumption, from the total sample size 416(35%) were expected to be males (husbands) and the rest 784 (65%) females. The married women constitute 35% of the total sample size and the non-married ones 30%. Five peasant associations from the 10, and ten kebeles of Gondar Town from the 21, were selected by lottery method. Households were selected by systematic sampling technique. Women 15-49 years old and husbands of the selected women were the study subjects. After selecting the household, if a married woman lives in that house, she was selected. If there are no married women in the selected house, the woman who is the head of that household was selected.

In the rural areas, annual income was estimated by converting the total amount of crops they produced in the past one year into Birr. Annual income less than 1800.00 Birr was considered as low, 1800.00 to 5988.00 Birr as medium, and 5989.00 Birr or more as high income.

A pre-tested questionnaire, which was prepared in Amharic, was used for data collection. Female interviewers who had completed 12 grade administered the questionnaire. Female interviewers were used to increase response rate especially among female respondents. Questionnaires were checked daily for completeness by two nurse supervisors. The principal investigator checked all questionnaires before data were entered. Data were processed and analyzed by a computer using the statistical package EPI INF VERSION 5. Chi-square test was used to test the association between the dependent and independent variables.

Results

A total of 1379 (782 female and 597 male) individuals had responded for the study. Two houses were closed and dropped after repeated visits. The majority of the respondents were females (56.7%), urban residents (72.2%), Orthodox Christians (85.7%), Amharas (78.0%), and in the age group of 25-39 (56.5%). The mean age of female respondents was 30.6 years (SD=7.52) and that of themales was 39.0 years (SD=8.64). Twenty seven percent of the respondents were illiterates. About 57% of the female respondents had 0-3 total births. The mean number of totals births from the female respondents was 3.4. About 74% of the female respondents were housewives. Six hundred sixty seven (85.3%) of the female respondents were married. The total number of male respondents does not correspond to the totalnumber of married women because 70 males were not available after repeated visits. Only 23.7% of the households had a relatively high income (more than 5988 Birr per year). The mean annual income was 4835 Birr.Ninety nine percent of the total respondents believe that family planning is important. Most of them had information about family planning, 74.9% and 77.4% of the female and male respondents, respectively. About 71.8% of the female respondents and 36.6% of the male respondents knew more than one method of family planning. Condoms were the most known contraceptive methods to males (57.8%). Health professionals were the main information sources for female (63.3%) and 39.2% of the male respondents obtained information from more than one source (Table 1).

The overall modern contraceptive prevalence rate was 28.6% (35.5% urban and 11 % rural). Contraceptive prevalence among married women was 32.1%. Injectable contraceptives were used by 39.7% of the female users, followed by oral contraceptive pills (35.3%). One hundred (16.8%) of the male respondents had ever used modern contraceptives. Currently only 12 (2.0%) of the male respondents are using modern male contraceptives. Condoms were the only family planning methods used by the males. The Gondar Health Center was the main source for female contraceptive methods (43.3%) (table 2). Six (50.0%) of the male current users obtained the condom from shops, 3 (25.0%) from Gondar Health Center, and two (16.7%) from FGAE. Only 4.0% of the female and none of the male contraceptive users reported the contraceptives to be expensive.The most important reason, given by 54.3% of the female and 44.8% of the male respondents, for not using modern contraceptives was the need to have children (Tables 3 and 4). About 36.4% of the female ever users reported to have discontinued taking contraceptives for different reasons, the main one being again the need to have children (68.8%) (Table 5).Of those who were not using modern contraceptives, 72% of the females and 69.6% of the males had positive attitude towards future use of contraceptives. The average number of children desired to have in their lifetime was 5.0 and 5.3 for female and male respondents, respectively.

Rural residents, women 15-19 years old, illiterates, divorced or widowed women, and Women who earn low income were found at higher risk of not using modern contraceptives (Table 6).

Discussion

Ninety nine percent of the total respondents believe that family planning is important. As the findings in other parts of the country show (4,5,7), most of them (76.0%) have information about family planning. Previous studies (4,7) reported that oral contraceptive pills were the methods known by the majority of the female respondents. In this study more than one method of family planning is known by 72% of the female respondents. This could be because of the increased effort in the dissemination of information about family planning methods. Condoms were known by 57.8% of the male respondents. Because condoms are promoted for the prevention of HIV infection too, a large proportion of the community was expected to know the contraceptive benefits of condoms. Like the findings in Addis Ababa (7), health profe-ssionals were the main information sources (46.6%) followed by the radio (21.5%).

Despite a good knowledge of contraceptives, the overall modern contraceptive prevalence rate was 28.6%. Because natural contraceptive methods are difficult to rely on, usage of modern contraceptive methods was used to calculate the contraceptive prevalence rate. The contraceptive prevalence in Gondar Town and the surrounding rural areas was higher than the previous reports for urban and rural areas of North Gondar Zone (9). This may show the increasing interest of people in using contraceptives. Previously the studies in other

parts of the country (4,5,7) showed that oral contraceptives were the popular methods used by family planning clients. This study showed injectable contraceptives to be preferable by a large proportion of the clients (39.7%). The increased availability of injectables, which are less frequently administered, might have contributed for the increased usage of this method. Only 12 male respondents had used male contraceptive methods. This shows that family planning is still considered as a responsibility of women. The health center was the main source of female contraceptives (43.3%) followed by Family Guidance Association of Ethiopia (29.5%). This finding is similar with the report from Addis Ababa (7).

Of the total female respondents who were not using modern contraceptives, 46.1% mentioned that the need to have more children was the reason for not using contraceptives. This was also the main reason given in Jimma (4). About 19% of the female respondents reported that sexual abstinence was the reason for not using modern contraceptives. Women who are not married usually deny to report that they are sexually active. The main reason given by male respondents for not using male contraceptives was the need to have more children. About 14.3% of the female respondents reported to have discontinued taking contraceptives for different reasons, the main one being the desire to have a child (68.8%). Ninety nine percent of the respondents believed in the importance of family planning. In agreement with the above statements is that 72% of the female and 69.6% of the male non-users had a positive attitude towards future use of contraceptives. On the contrary the average number of children they want to have in their lifetime is relatively high (5 and 5.3 by female and male respondents, respectively). This might indicate that they do not have a strong tendency to significantly reduce the number of children they will have in the future. As was the previous finding in North Gondar and Addis Ababa (7,9) the better educated ones were found to be more likely to use contraceptives. In this study rural residents, women 15-19 years old, divorced or widowed women, and women who earn low income were found at higher risk of not using modern contraceptives.

One of the limitations of this study was, of course, that multivariate analysis was not done since the statisticals package for controlling confounding effect is not available in our College.

In conclusion the contraceptive coverage is promising and injectables are becoming preferable methods by the clients. It is, therefore recommeded from this study that:
1. Even though contraceptive coverage is higher compared to the previous reports, health professionals, in cooperation with other concerned bodies, should continue their effort to further increase the contraceptive coverage
2. Since there was family planning coverage discrepancy between the urban and rural areas, adequate number of CBD agents should be trained to reach the rural community.
3. Further studies on the quality of family planning services are necessary.

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Tables

Table 1: **Knowledge and information source about family planning, Gondar Town and the surrounding 10 peasant associations, March 99**

	Female No. (%)	Male No. (%)	Total No. (%)
Have information about family planning			
Yes	586(74.9)	462(77.4)	1048(76.0)
No	196(25.1)	135(22.6)	331(24.0)
Total	782(100.0)	597(100.0)	1379(100.0)
Type of contraceptive known			
Pills	98(16.7)	14(3.0)	112(10.7)
Injectables	52(8.9)	11(2.4)	63(6.0)
IUCD	5(0.9)	1(0.2)	6(0.6)
Sterilization	2(0.3)	0(0.0)	2(0.2)
Condom	0(0.0)	267(57.8)	267(25.5)
Other	8(1.4)	0(0.0)	8(0.8)
More than one	421(71.8)	169(36.6)	590(56.3)
Total	586(100.0)	462(100.0)	1048(100.1)
Information source			
Health professionals	371(63.3)	118(25.5)	489(46.7)
Radio	122(20.8)	103(22.3)	225(21.5)

CBD agents	55(9.4)	40(8.7)	95(9.1)
Friends/neighbours	20(3.4)	3(0.6)	23(2,2)
TV	7(1.2)	10(2.2)	17(1.6)
Other	10(1.7)	7(1.5)	17(1.6)
More than one source	1(0.2)	181(39.2)	182(17.4)
Total	586(100.0)	462(100.0)	1048(100.1)

Table 2: **Usage, type, and sources of modern contraceptive methods for women 15-49 years old, Gondar Town and the surrounding 10 peasant associations, March 99**

	No. (%)
Ever use of contraceptives	
Yes	307(39.3)
No	475(60.7)
Total	782(100.0)
Current use of contraceptives	
Yes	224(28.6)
No	558(71.4)
Total	782(100.0)
Type of contraceptive currently used	
Injectables	89(39.7)
Pills	79(35.3)
Tubal ligation	23(10.3)
IUCD	16(7.1)
Condom	12(5.4)
Norplant	5(2.2)
Total	224(100.0)
current source of contraceptives	
Health Center	97(43.3)
FGAE	66(29.5)
Hospital	36(16.6)
Health station	10(4.5)
Shops	8(3.6)

CBD agents	7(3.1)
Total	224(100.0)

Table 3: **Reasons given by women 15-49 years old for not using contraceptives, Gondar Town and the surrounding 10 peasant associations, March 99**

Reason	married women No. (%)	All women No. (%)
Want a child	246(54.3)	257(46.1)
No sexual intercourse	26(5.7)	106(19.0)
Has no information	51(11.3)	60(10.8)
Infertile	48(10.6)	51(9.1)
The interval between births is naturally wide	27(6.0)	27(4.8)
Using other natural methods	27(6.0)	27(4.8)
Health problems	15(3.3)	15(2.7)
Other	13(2.9)	15(2.7)
Total	453(100.1)	558(100.0)

Table 4: **Reasons given by male respondents for not using of male contraceptives, Gondar Town and the surrounding 10 peasant associations, March 99**

Reason	No (%)
Need to have children	262(44.8)
Wife is using contraceptives	190(32.5)
Has no information about contraceptives	49(8.4)
Wife is infertile	44(7.5)
Is using natural methods	19(3.2)
Other reasons	21(3.6)
Total	585(100.0)

Table 5: **Reasons given by women 15-49 years old for discontinuing use of modern contraceptives, Gondar Town and the surrounding 10 peasant associations, March 99**

Reason	No. (%)
Wanted to have a child	77(68.8)
Stopped sexual intercourse	15(13.4)
Health problems as a result of the method used	15(13.4)
Other reasons	5(4.5)
Total	112(100.1)

Table 6: **Factors associated with modern contraceptive use, Gondar Town and the surrounding 10 peasant associations, March 99**

Factor	Use contraceptive		OR	P-value
	Yes	No		
Residence				
Rural	24	194	-	X^2-test
Urban	200	364	4.44	P<0.001
Age				
15-19	6	41	-	
20-24	33	87	2.59	
25-29	65	121	3.67	X^2-test
30-34	55	100	3.76	P<0.05
35-39	41	100	2.8	

40-44	18	81	1.52	
45-49	6	28	1.46	
Educational status				
Illiterate	39	269	-	
Can read and write	35	68	3.55	X^2
Grade 1-6	30	59	3.51	For linear
Grade 7-12	99	143	4.78	Trend,
12+1 and above	21	19	7.62	P<0.001
Marital status				
Single	6	9	-	
Married	214	453	0.71	X^2-test
Divorced/widowed	4	96	0.06	P<0.001
Occupation				
House wife	160	417	-	
Government employee	51	45	2.95	X^2-test
Merchant	3	21	0.37	P<0.001
Other	10	75	0.35	
Income				
<1800 Birr/year	56	305	-	X^2 for
1800-5988 Birr/year	87	149	3.18	Linear trend,
5989 Birr & above per year	81	104	4.24	P<0.001

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