

ORIGINAL ARTICLE

PERCEIVED SIDE EFFECTS OF ORAL CONTRACEPTIVES IN JIMMA TOWN, WESTERN ETHIOPIA

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ABSTRACT

BACKGROUND: *Misinformation and misperception seem to be the major barrier in contraceptive use. Rarely, Surveys have attempted to assess the effect of oral contraceptive and the associated misperception on clients' perspective. The aim of the study was to assess the perception of women of childbearing age on the side effects of oral contraceptive and associated rumors.*

METHODS: *A cross-sectional community based study was conducted in Jimma town in the month of November 2003. Nine of the 21 kebeles in Jimma town were included in the study and the 1067 sample size was distributed to each kebele based on proportional to size allocation. Respondents were selected by systematic random sampling and interviewed using structured and pretested questionnaire. Data were entered in to SPSS-11 for window soft ware program and analyzed using multivariate analysis with logistic regression and X^2 tests.*

RESULTS: *A total of 1031 respondents were interviewed with a response rate of 96.6%. Most of the respondents were: in the age group 15-24(46%), housewives (58%), Oromos (38%) and Orthodox Christians (59%). Ninety-six percent of the respondents knew oral contraceptive but only 43% of them ever used it. Older women and grand multipara were two times likely to use oral contraceptive. The commonest Reasons of not using contraceptives among married women were fear of side effects (37%), need of more children (32%) and religions reasons (22%). Headache (30%), extreme weakness (24%), sterility (20%) and depression (17%) were the most wide spread rumors on the effect of pills. From all the study subjects, 45%, 33% and 10% of them thought that oral contraceptive causes anemia, permanent sterility and birth defects respectively. Only 38% and 6% of women respectively believes that oral contraceptive causes heart problems and stroke.*

CONCLUSION: *Rumors and misperception on the effect of oral contraceptive are widespread in the community. Intensive counseling and information education communication (IEC) should be given at various health services to rectify the rumors and misperception and to increase the prevalence and sustainable use of oral contraceptive.*

KEY WORDS: oral contraception, perception, side effects, rumors.

INTRODUCTION

Ethiopia with a total population of 67,220,000, like most countries of sub Saharan Africa, is characterized by rapid population growth which is influenced by high level of fertility. In such society, the need of family planning is unquestionably urgent (1, 2). Different types of contraceptives have been known as a means of family planning in Ethiopia. Oral contraceptive (OCP) is the commonest known methods of family planning, however, only 13% of women use it and there are great discrepancies between knowledge and use (2-4).

Oral contraceptives are one of the most effective and systematically evaluated drugs with failure rate of 1-2% (5, 6). They confer important health benefits even though they are not without risks. In developing countries, especially in Africa and Asia the risk of dying from child bearing is 100 times than the risk of dying from pills taking (7).

Oral contraceptive users are two to four times at risk of developing cardiovascular diseases such as myocardial infarction, stroke, and pulmonary embolism. These complications are restricted to smokers, old women, and diabetics (8).

Risk of ovarian and endometrial cancer reduces by half in contraceptive users compared to non-users. Pills have no overall effect on breast cancer unless it is associated with long term use (9-11).

Pills reduce the risk of pelvic inflammatory diseases (PID) due to gonorrhoea and PID due to Chlamydia infection is less severe and extensive in pills users. Since the commonest causes of infertility especially in developing world is PID, oral contraceptive reduces the problem of infertility significantly. Literatures have repeatedly showed oral contraceptive have no any relation with any of the birth defects. Some studies indicate

that an equal percentage of pill takers lose weight as gain weight during pill use (12-15).

Despite the fact that pills are the commonest known and one of the most effective & beneficiary contraceptive, studies in different parts of the world revealed that taking pills is considered risky behavior. In 1985, a poll in the United States found that three fourth of the women believe that pills taking possess substantial health risks (16). Another survey in five west European countries found that pills were considered more risky than IUD or sterilization (17).

Rumors and misinformation are also wide spread in different parts of the world and seems to be major barrier for contraceptive use. In a study conducted in eight developing countries (Thailand, Sri Lanka, Egypt, Senegal, Nigeria, Costa Rica, Chile and Mexico), it was found out that over 40% of women thought that pills taking was more hazardous than child bearing except those in African samples. In the same study the benefits of pills was virtually unknown. Between 20% to 50% of women thought that oral contraceptive increased the risk of breast, uterine and stomach cancer. Women also worried that oral contraceptives caused sterility and birth defect. Only 25% to 35% of women knew the cardiovascular effects of the drug and almost none were aware of the beneficial effects in reducing anemia (18).

A Dominican Republic study found that unfavorable rumor led to discontinuation of a variety of effective methods. First time users were more affected than those who had used modern methods before. Women who had fears about modern contraceptive and those who had side effects were more likely to discontinue after hearing unfavorable rumor (19).

A research conducted in Indonesia showed that 42% of women thought that oral contraceptive stopped women from

ever having another baby and 35% thought that oral contraceptive is unreliable (20).

A study conducted in Egypt examined the impact of rumor involvement in contraceptive usage. One common misperception and misinformation shared by both users and non-users, is that uses cause weakness (fatigue, dizziness, or lethargy) which is out of the scientific logic (21).

In Ethiopia some studies showed that the most common reason for discontinuation of pills is its side effects (4,22). There were no studies in Ethiopia which assessed the clients' perception on the side effects of oral contraceptive and the associated rumors. This study was carried out to address this issue with the objectives of assessing the perception of women of reproductive age group on the potential side effects of OCP, rumors (wide spread talks on the ill effects of OCP with in the community) and misinformation about oral contraceptive.

METHODS AND MATERIALS

This Community based cross-sectional study was conducted to determine the

perception of women of reproductive age group towards the side effects of oral contraceptive and associated rumors in Jimma town, in the month of November, 2003. Jimma town is located 334 Km south west of Addis Ababa and has three higher and 21 kebeles with a total projected population of 110,000(23). The source population were women in a reproductive age group (15-49) in Jimma town. Since women of reproductive age group constitute 21% of the total population, the source population becomes 23,100(24). The study population includes women in a reproductive age group (n=1067) sampled from the source population.

To get a maximum sample size, the assumptions made were: prevalence of misperception of oral contraceptive of 50%, 95% CI, and margin of error of 3%. This gave a total sample size of 1067. Two-stage sampling was used. In the first stage, three kebeles were selected from each higher (a total of 9 kebeles) by lottery method and the total sample size (n=1067) was distributed to each of the selected Kebeles based on probability proportional to size allocation as depicted below.

Keftegna	Kebele	Number of house holds	Sample size
One	2	687	97
	3	500	71
	7	801	113
Two	2	751	106
	3	787	112
	4	633	90
Three	1	759	108
	5	860	122
	7	1749	248

In the second stage, women of reproductive age group were selected using systematic random sampling based on their house numbers. If there were more than one eligible respondent in the same

household, one of them was selected by lottery methods.

Structured questionnaire which was translated in to Amharic & pretested in the same source population was used for data collection. The content of the questionnaire includes: socio-demographic data, fertility history, knowledge and use of contraceptive, rumors on use of oral contraceptive, perception of women on the side effects of oral contraceptive on specific health problems such as cardiac problems, stroke, weight gain, melasma, cancer, anemia, sterility, sexually transmitted diseases and birth defects.

The data collection was carried out after consent was obtained from the kebele administrators and study subjects by well trained paramedical extension students strictly supervised by the investigators using the structured questionnaire. The collected data were checked for completeness, cleaned, coded and entered in to SPSS-11 for window soft ware program and analyzed using multivariate analysis with logistic regression and chi-

square tests. P-value of below 5% was taken as statistically significant.

RESULTS

A total of 1031 respondents were interviewed with a response rate of 96.6%. Thirty-six respondents did not participate in the study. The reasons for the non-response rate were unwilling to participate in the study (64%) and absence from home after repeated visits (36%). The socio-demographic profile of the respondents revealed that majority of them were in the age group 15-24 (46%), house wives (58.4%), Oromos (37.5%) and Orthodox Christians (59%).

Ninety six percent of the respondents had knowledge of one or more methods of contraceptives. The same proportion of women had knowledge of oral contraceptive. Sixty two percent of women have used one or more methods of contraceptive currently. Oral and injectable contraceptives had been used by 43 %and 35% of the respondents respectively as shown in Table 1.

Table 1. Different types of contraceptives currently used by the respondents (n=995), Jimma town, December 2003

Types of Contraceptives	Usage of contraceptives	
	Yes Number (%)	No Number (%)
Oral contraceptive	432(43.4)	563(56.6)
Injectable contraceptive	348(35)	647(65.0)
Norplant	12(1.2)	983(98.8)
Condom	33(3.3)	962(96.7)
Natural methods	77(7.7)	918(92.3)
IUD	37(3.7)	958(96.3)
Other	3(0.3)	992(99.7)

The commonest reasons of not using contraceptive methods among the married women were: fear of side effects (37%), need of more children (32%) and religious reasons (22%).

Age and parity did show statistically significance difference on the use of oral contraceptive after adjusted for socio-demographic variables. Older women and

grand multipara were two times likely to use oral contraceptive. Women who could read and write and whose educational status in elementary school were more

likely to use OCP. However, More educated women is almost equally likely to use oral contraceptive as compared to the illiterates, OR = 0.98, P = 0.98 (Table 2).

Table 2. Association of socio-demographic variable and oral contraceptive use, Jimma town (n=995), December 2003

Socio-demographic Variables	Total	Current Use of Oral Contraceptive			P-Value
		Yes	%	Adjusted OR(95%CI)	
Age					
15 - 24	457	126	27.6	1	
25 - 34	323	173	53.6	1.87(1.32,2.66)	0.0001
35 - 49	215	130	61.9	2.35(1.47,3.75)	0.0001
Educational states					
Illiterate	143	67	46.9	1	
Read & Write	30	20	66.7	2.61(1.08,6.32)	0.033
Elementary	362	175	48.3	1.59(1.03, 2.45)	0.035
High school	429	161	37.5	1.48(0.93, 2.35)	0.096
Above high school	31	9	29.0	0.98(0.33, 2.50)	0.98
Ethnicity					
Amhara	229	94	41.0	1	
Oromo	374	167	44.7	1.12(0.73, 1.72)	0.58
Dawro	115	47	1.11	(0.65,1.84)	0.73
Gurage	118	55	46.6	1.63(0.97, 2.71)	0.063
Yem	53	20	37.7	0.65(0.33,1.29)	0.22
Keffa	47	21	44.7	1.16(0.56,2.39)	0.68
Tigre	31	12	38.7	0.97(0.41, 2.32)	0.94
Others	20	13	65.0	2.87(1.01, 8.19)	0.048
Religion					
Muslim	295	136	46.1	1	
Orthodox	569	260	44.1	1.19(0.81, 1.75)	0.35
Protestant	105	35	33.3	0.70(0.40, 1.23)	0.22
Other	6	1	16.7	0.005(0.000, 423)	0.36
Parity					
0 - 2	683	244	35.7	1	
3 - 4	182	102	56.0	1.21(0.81, 1.79)	0.35
5 or above	130	86	66.2	1.69(1.02, 2.79)	0.040
Income per month (in Birr)					
> 200	574	257	44.8	1	
200 - 500	180	76	42.2	0.75(0.51, 1.11)	0.15
> 500	241	99	41.1	1.16(0.79, 1.69)	0.43

Rumors on the ill effects of oral contraceptive were also assessed. Headache (30%), extreme weakness (24%), sterility (20%) and depression (17%) were the widest spread rumors in the community.

When asked to compare the safety of oral contraceptive with child bearing, 38 % of women said that oral contraceptive is safer than child bearing. OCP was said to be less safer than child bearing by 21% of respondents. There was statistically

significant difference between educational status and perception on the safety of OCP as compared with child bearing. Less educated women perceived that OCP is less safer than child bearing, $X^2=52$ and $P=0.0001$ (Table 3).

Table 3. Socio-demographic differentials in women's perception on the safety of oral contraceptive in comparison with child bearing (n=995), Jimma town, December 2003

Socio-demographic Variables	Percent Believing OCP to be				Number
	Safer	Less Safer	Equally safe	Don't know	
Age					
15 - 24	39.4	20.4	7.9	32.4	457
25 - 34	43.0	20.1	7.4	29.4	323
35 - 44	34.1	24.4	6.8	34.7	176
45 - 49	35.9	25.6	2.6	35.9	39
Educational states					
Illiterate	30.8	22.4	3.5	43.4	143
Read & Write	13.3	20.0	0	66.7	30
Elementary	36.5	22.1	6.9	34.5	362
Secondary	46.6	19.8	8.9	24.7	429
Above high school	41.9	25.8	16.1	16.1	31
Ethnicity					
Oromo	39.0	19.3	8.0	33.7	374
Amhara	43.7	21.8	8.3	26.2	229
Dawro	29.0	27.0	5.5	38.0	110
Gurage	39.8	21.2	8.5	30.5	118
Yem	37.7	22.6	5.7	34	53
Keffa	44.7	12.8	2.1	40.4	47
Tigre	48.3	22.6	6.5	22.6	31
Others	55.0	20.0	10.0	15.0	20
Occupation					
House wife					
Government employee	42.2	20.4	6.0	31.4	583
Merchant	50.0	23.1	7.7	19.2	52
Student	26.7	22.1	9.3	41.9	86
Daily laborer	35.8	16.9	12.2	35.1	148
Other	34.6	33.3	9.9	22.2	81
Other	35.8	16.9	12.2	35.1	45
V. Religion					
Muslim	31.5	20.0	8.5	40.0	295
Orthodox	42.2	22.1	7.0	28.7	589
Protestant	46.7	19.0	6.7	27.6	105
Other	50.0	16.7	0	33.3	6
Parity					
0 - 2	39.5	21.1	7.5	31.9	683
3 - 4	41.2	23.1	8.2	27.5	182
5 or above	36.9	19.2	5.4	38.5	130

Women were asked on their perception of the effect of OCP on specific health problems. Thirty eight percent of them believed that oral contraceptive causes cardiac problems. One third of the women thought that OCP causes weight gain and permanent sterility. A significant number of women (45%) thought that OCP causes anemia (Table 4).

Table 4. Perceived side effects of oral contraceptive on specific health problems (n=995), Jimma town, December 2003

Health Problems	Perception		
	Yes Number (%)	No Number (%)	Don't know Number (%)
Cardiac Problems	378(38)	302(30.3)	315(31.7)
Stroke	57(5.7)	277(27.8)	661(66.5)
Weight gain	332(33.4)	277(27.8)	386(38.8)
Melasma	656(66.1)	145(14.6)	192(19.3)
Cancer	130(13.1)	284(28.5)	581(58.4)
Anemia	448(45)	191(19.2)	356(35.8)
Sexually transmitted disease (STD)	40(4)	486(48.8)	469(47.2)
Permanent Sterility	329(33.3)	262(26.3)	404(40.7)
Birth defects	99(9.9)	363(36.5)	533(53.6)

There were statistically significant differences between perception of the respondents on the effect of OCP on specific health problems and educational status. More educated women believed that OCP causes weight gain, anemia and permanent sterility than their counterparts with respective p-value of 0.006, 0.001 and 0.0001 respectively.

DISCUSSION

The Knowledge of women about oral contraceptive was found to be higher as compared to other study which was conducted around Jimma (22). This could be due to the long-term combination effect of the activities of Community Based Education (CBE) of Jimma University, Family Guidance Association of Ethiopia (FGAE) and other health agents. However, there was a gap between knowledge and usage of OCP; similar findings were observed in other studies (3, 25). In the present study, the prevalence of OCP is much lower than that of Oromiya region

even if it has similarities with a study conducted in Gondar (1, 26). Usage of OCP was higher in older and multipara women than their counter parts. The explanation could be that older and multipara women might have large family size which influenced them to use OCP. Usage of OCP was less likely as the women become more educated. The reasons could be that educated women are becoming pessimistic about the effect of OCP because of the false notions and widely spread rumors as described below. Similar perception and reluctance of more educated women to use OCP is observed in other country (27).

The commonest reasons of not using contraceptive among married women were fear of side effects, need of more children and religious reasons. Similar reasons were noticed in other studies (4, 22).

This study has also analyzed women's perception on the effect of oral contraceptive on specific health problems and the associated rumors. The commonest rumors widespread in the community were

headache, extreme weakness and sterility. Such rumors, which are out of scientific logic, were also observed in Egypt (13).

Regarding the misperceptions about the side effects of oral contraceptive on specific health problems, 45%, 33% and 10% of the women worried that OCP could cause anemia, permanent sterility and birth defects respectively. These non-scientific based misperceptions were higher as compared to that of other studies (18, 28). This could be explained by lack of proper counseling and IEC on the benefits and effects of oral contraceptives in Ethiopia.

While some believed the above false notions, only 38% and 6% respectively were aware of the possible cardiovascular and cerebrovascular adverse effects of oral contraceptive. Similar results were observed in other developing countries (18, 28). The low morbidity and mortality of women due to cardio vascular diseases and stroke could explain the low correct perception of women on the effect of OCP on the mentioned health problems.

The inverse relationship of educational status and correct perception on the effect of oral contraceptive on anemia and permanent sterility is a surprising finding. This might be due to the general fear of ill effects from oral contraceptives, rather than real knowledge of genuine ill effect.

In conclusion, Rumors and misperceptions about the effect of oral contraceptives are wide spread in the community of Jimma town. We recommend that Intensive counseling and IEC program should be carried out in various health services and at the community level for clients to rectify the rumors and misperceptions and to increase the prevalence of OCP and its sustainable use.

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