

Men's Attitude towards Contraceptive Use in Ethiopia: A Multilevel Analysis of 2000 Ethiopian Demographic and Health Survey

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Abstract

In Ethiopia, family planning program is women slanting. Men's exclusion from family planning strongly affects their preferred family size and attitude towards contraceptive use. Some researchers also concluded that women's attitude towards contraception is strongly affected by their husband's attitudes. This article is designed to examine the influence of husband's attitude towards couple's current contraceptive use in Ethiopia. The 2000 Ethiopian Demographic Health Survey data is used as main data source. The qualitative data is also collected through in-depth interview from thirty-six currently married men in four regions (Tigray, Amhara, Oromiya and SNNPR). Both bivariate and multivariate analyses are applied in the study. Multilevel modeling was also further developed to identify the possible community level variation on couple's current contraceptive use. Both bivariate and multivariate analysis results showed that husband's approval of contraceptive use and couple communication are statistically significant (at $p < 0.01$ level of significance) in contraceptive use, indicating that husbands who approve and discuss family planning with partners have positive attitude towards contraceptive use. Moreover, significant community level variations have been found in the multilevel model, demonstrating the existence of variation in husbands' attitude towards contraceptive use across communities. The author suggests that the policy effort should be made to enable men for realizing the positive consequence of their approval and discussion regarding family planning. Furthermore, the existing family planning program in Ethiopia should focus on changing men's attitude towards family planning.

Keywords: attitude, contraceptive use, couple's communication, husband's approval, multilevel, multilevel analysis

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Introduction

African countries are characterized by rapid population growth (PRB, 2006). Ethiopia is among those countries with a high fertility and rapid population growth rate. Ethiopian population in mid 2006 was estimated to be 74.8 million and is growing at 2.4% per annum (PRB, 2006). Rapid population growth due to high fertility probably leads to poverty and makes it hard for countries to pull resources and concentrate on future development effort because resources are highly consumed. Moreover, high fertility is associated with maternal morbidity and mortality (Jamison *et al.*, 1993).

For developing countries like Ethiopia with high fertility, family planning is a means of solving maternal morbidity and mortality. The practice of family planning can be achieved through couple's joint decision on contraceptive use and their approval of one's choice of method. Moreover, the progress in family planning depends on changing men's attitude and behavior regarding their responsibility towards reproductive health and gender issues (UN, 1995). Men's attitude in family planning is important in the context of raising contraceptive prevalence and reducing level of fertility. This is more clearly described in Ezeh's study from Ghana, that describes the wife's attitude towards contraception is strongly affected by her husband's attitudes and the reverse is not true (Ezeh, 1993).

Ethiopian family planning program is still women oriented even though family planning program personnel are also somehow considering men in the reproductive health and family planning matters. Men's segregation from family planning efforts has shown effects on their preferred family size and attitude towards contraceptive use (Bankole and Sigh, 1998). The most successful family planning programs that targeted couples, rather than women only, have positive results (Ezeh, 1993). The joint decision-making roles of men in reproductive health, particularly in family planning, have weighty influences on women's health (Piet-Pelon *et al.*, 2000).

According to the three national surveys conducted in Ethiopia (NFFS, 1990; EDHS, 2000; 2005), the knowledge of contraception has increased from 63% in 1990 to 83% in 2000 and 88% in 2005 with current use of contraception 4.6%, 8.2% and 15%, respectively (CSA, 1993; CSA and ORC Macro, 2001; 2006). This shows the existence of a wide gap between

knowledge of contraception and current use in the country. This wide gap between knowledge and practice of contraceptive use is possibly due to absence of couple communication regarding family planning and husband's approval of family planning.

One of the specific objectives of the Ethiopian National Population Policy is reducing fertility from total fertility rate (TFR) of 7.7 children per woman in 1990 to 4.0 children per woman by the year 2015 by increasing the contraceptive prevalence in the country (NOP, 1993). In order to achieve the objectives of the family planning programs and strategies, planners and decision makers need to have a thorough understanding of various factors that impede practice of contraception use. However, studies dealing with those factors are limited in the country except a few fragmented (Gebirekidane, 2002; Girma, 1997) which are done through single level analysis approach. When 'single level' techniques are applied to hierarchically structured data, the analysis will ignore important aspects of the data structure (Goldstein, 2003).

Therefore, assessing the influence of couple communication and husbands' approval of family planning (hereafter, together refer to men's attitude) on couples' current contraceptive use with some selected demographic and socio-economic background characteristics is the main purpose of this article. Consequently, it is essential to investigate such factors associated with couples' current use of contraceptive, which in turn explain men's attitude towards current contraceptive use in Ethiopia.

Objectives of the Study

The general objective of this study is to examine the influence of husbands' attitude (i.e., husbands' approval of and couple communication regarding family planning) and some selected socio-economic and demographic variables on couples' current contraceptive use.

The specific objectives of the study are:

- To assess the influence of husbands' approval of family planning on couples' current contraceptive use.
- To examine the influence of couple communication regarding family planning on couples' current contraceptive use.

- To assess the impact of demographic and socio-economic characteristics on couples' current contraceptive use.
- To identify the community level variations of attitudinal variables in the multilevel model.

Based on the specific objectives of the study and literature review, the study aimed to test the following main hypotheses:

- H₁: Couples' communication regarding family planning positively influences their current contraceptive use.
- H₂: There exists statistically significant association between Husbands' approval of family planning and couples' current contraceptive use.
- H₃: The number of living children significantly determines current contraceptive use of couples.
- H₄: Husbands who have at least primary level of education are more likely to use contraceptives currently than the illiterates.

Conceptual Framework

The theory of planned behavior is used as a guide in the context of contraceptive use. The theory of planned behavior predicts deliberate behavior; because behavior can be premeditated and planned. According to this theory, behavior is influenced by the positive or negative outcome of attitudes (Ajzen, 2002). Attitude can be measured in terms of inter-spousal communication and subsequent approval of family planning (Gebirekidane, 2002; Mohammed *et al.*, 2005). Furthermore, documented works (Bawah, 2002; Gebirekidane, 2002; Mohammed *et al.*, 2005; Oyediran *et al.*, 2002) have described influence of the components of attitude (approval of family planning and couple communication regarding family planning) on contraceptive use.

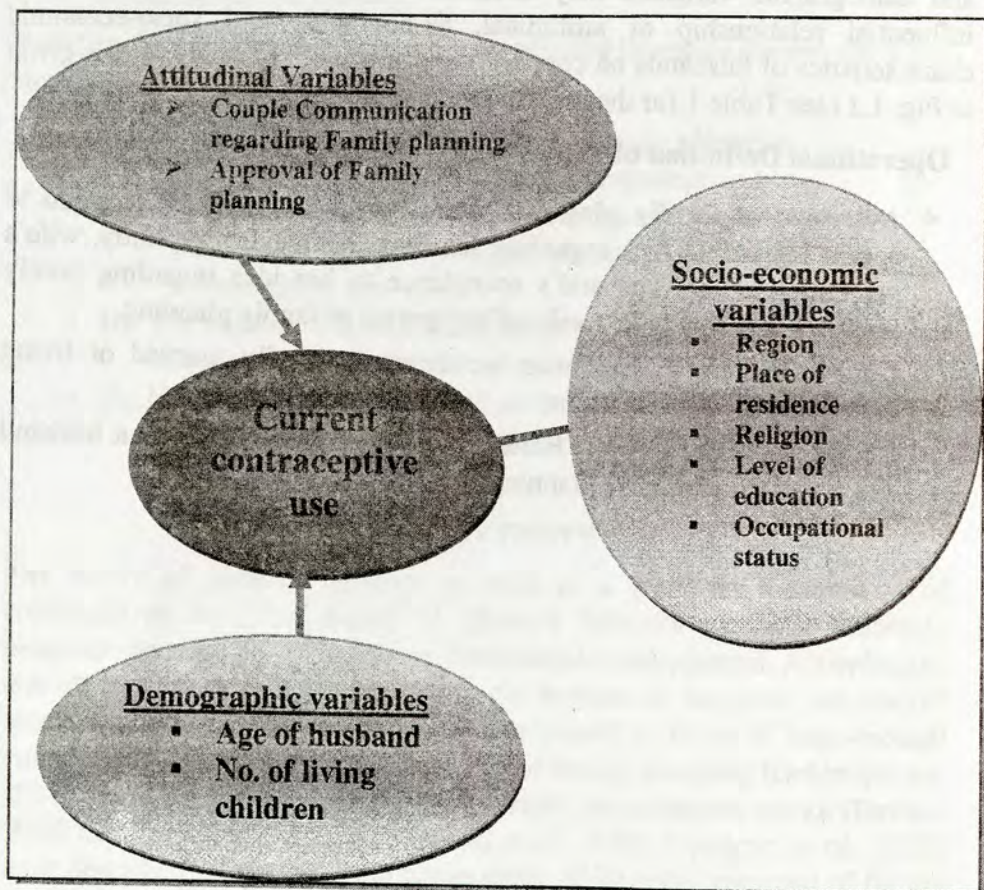
It is likely that husbands' approval of family planning and couple communication regarding family planning influence couples' current use of contraceptives along with some selected socio-economic and demographic variables. Approval of family planning by husbands indicates openness from the husbands' side to approve various family planning related matters and hence may motivate couples' contraceptive use. Thus, both husbands' approval of family planning and couples' communication regarding family

planning (attitudinal variables) influence the current use of contraceptives of couples, which will lead into effective use of the current method or switch to another effective method. On the other hand, some selected socio-economic and demographic variables may influence current contraceptive use. The influential relationship of attitudinal, demographic and socio-economic characteristics of husbands on couples' current use of contraceptives is given in Fig. 1.1 (see Table 1 for the description of these variables).

Operational Definition of Terms

- **Approval of family planning:** Refers to a husband's perception to accept his wife's idea regarding family planning. In this study, wife's perception of her husband's acceptance to her idea regarding family planning is defined as a husband's approval of family planning.
- **Couple:** Refers to men who are currently legally married or living together in consensual union.
- **Couple communication:** Refers to the discussion between a husband and a wife about family planning.

Figure 1. Conceptual framework of the relationship among attitudinal, socio-economic and demographic variables on current use of contraceptives



Source: Adopted from Mohammed *et al.*, 2005

Methodology

Data Source and Analysis

In view of the fact that the Ethiopian DHS 2005 did not collect information on men's approval of and couple communication regarding family planning, the couple data set from the 2000 EDHS was used as main source of data for this article. The couple data set was generated by linking spouses from the male data set constituting a sample of 2,607 eligible men aged 15-59 years and that from female data set constituting a sample of 15,367 eligible women aged 15-49 years, who completed interviews of the survey (CSA and ORC Macro, 2001).

Men's approval and couple communication regarding family planning information were not collected directly from men. Instead a wife's perception of her husband's approval of family planning and information on couple communication regarding family planning reported by wives was used as source for attitudinal variable for analysis. Couples' current use of contraceptives and some selected socio-economic and demographic variables were taken directly from husbands' report. Moreover, the qualitative data collected from 36 married men from four regions (Tigray, Amhara, Oromiya and SNNPR) were used to support and enrich the quantitative findings.

Bivariate analysis was used to examine the association between explanatory variables and response variable. Multivariate analysis was also applied for logistic regressions to test statistical significance and community level variance. The logistic regression from single level model (via SPSS) was taken into two-level random intercept model (via MLwiN, version 2.02). Multilevel modeling was also developed to identify the possible community level variation on the response variable. The response variable - current contraceptive use (y_{ij}) - was coded as: user =1, non-user = 0.

Accordingly, binomial two-level random intercept binary logistic regression model was employed in the analysis. General mathematical formula for two-level random intercept binary logistic regression model with one independent variable is given in Box 1.

Box 1. General mathematical formula for two-level random intercept binary logistic regression model with one independent variable

$$y_{ij} \sim \text{Binomial}(n_{ij}, \pi_{ij})$$

$$\text{logit}(\pi_{ij}) = \beta_0 + \beta_1 x_{ij} + \beta_2 x_{ij} + \beta_3 x_{ij} + \dots + u_j$$

$$\text{Var}(y_{ij}) = \pi_{ij}(1 - \pi_{ij}) / n_{ij}$$

Where $\pi_{ij} = P(y_{ij} = 1)$; $n_{ij} = 1$ for this binary data; y_{ij} is the value of y for the i^{th} individual (level 1) in the j^{th} cluster (level 2), β_0 is the overall mean of y (across all groups). $\beta_0 + u_j$ is the mean of y for group j and u_j is the difference between group j 's mean and the overall mean. x_{ij} is level 1 independent variable. Denominator (n_{ij}) is number of husbands in level i of level j . The levels in the multilevel analysis also refer to the different types of units of analysis (Browne *et al.*, 2002; Goldstein, 2003).

For identifying the change of community level variation due to the inclusion of different sets of variables, explanatory variables were entered in sequential order. At the first stage the attitudinal variables (approval of and couple communication regarding family planning), then demographic variables and finally the socio-economic variables were entered into the model. Then three models (I, II and III) were fitted in multilevel modeling. Presentation of regression analysis was taken from the final model (Model III of Table 3). The final model equation in which all independent variables entered into the two-level random binary logistic regression is presented in Box 2.

Box 2. Two-level random binary logistic regression equation of the final model (model III) with all independent variables (here 'CONUSE' stands for couples' current contraceptive use status, as described in Table 2.3).

$$\text{CONUSE}_{ij} \sim \text{Binomial}(\text{DENOM}_{ij}, \pi_{ij})$$

$$\begin{aligned} \text{logit}(\pi_{ij}) = & \beta_0 \text{CONS} + \beta_1 \text{Approves}_{ij} + \beta_2 \text{Yes}_{ij} + \beta_3 \text{Less than 35}_{ij} + \beta_4 \text{35-44}_{ij} + \beta_5 \text{2-3}_{ij} + \beta_6 \text{4-5}_{ij} + \beta_7 \text{6+}_{ij} + \\ & \beta_8 \text{Tgray}_j + \beta_9 \text{Amhara}_j + \beta_{10} \text{Ben-shagul-Gambela}_j + \beta_{11} \text{SNNP}_j + \beta_{12} \text{Dredawa-Harari}_j + \\ & \beta_{13} \text{Addis Ababa}_j + \beta_{14} \text{Urban}_j + \beta_{15} \text{Muslim}_{ij} + \beta_{16} \text{Others}_{ij} + \beta_{17} \text{Primary}_{ij} + \beta_{18} \text{Secondary}_{ij} + \\ & \beta_{19} \text{Non-agricultural}_{ij} + \beta_{20} \text{infrequently}_{ij} + \beta_{21} \text{Frequently}_{ij} \end{aligned}$$

$$\beta_0 = \beta_0 + u_{0j}$$

$$\begin{bmatrix} u_{0j} \end{bmatrix} \sim N(0, \Omega_u) : \Omega_u = \begin{bmatrix} 2 \\ \sigma_u 0 \end{bmatrix}$$

$$\text{var}(\text{CONUSE}_{ij} | \pi_{ij}) = \pi_{ij}(1 - \pi_{ij}) / \text{DENOM}_{ij}$$

The two-level random binary logistic regression equation (Box 2) was developed with two types of variables - level 1 and level 2 variables. Level-1 variables are described by *suffix -ij* (such as: husbands' approval of family planning, couple discussion regarding family planning, demographic variables, religion, education, occupation and access to media) and level-2 variables are also described by only *suffix -j* (such as region and place of residence).

The cluster was used as level-2 identifier for description of community level and respondent was also taken as level-1 identifiers for description of husband. The categorical coding for each independent variables and dependent variable is presented in Table 1.

Table 1. Description of variables by name (as used in modeling) and their categorical codes

Variable name	Description and codes
CLUSTER	Community's ID - level 2 identifier
RESPONDENT	Husband's ID- level 1 identifier
CONUSE	Current contraceptive using status of couple at the time of interview (1=currently user 0= currently non-user)
CONS	A constant variable, taking the value 1 for each husband. This variable is included as an explanatory variable in all models; its coefficient is the intercept (β_0).
APPROVAL	Wife's perception of husband's approval of family planning (0= no(disapproval including Don't know), 1=yes (approves))
DISCUSS	Wife's perception of couples discussion regarding FP (0= no (never discussed), 1=yes (discussed at least once last year))
AGEH	Age of husband at the time of interview (1= <35, 2= 35-44, 3= 45+)
NCHID	Number of living children (1= less than 2, 2= 2-3, 3= 4-5, 4= 6+)

Table 1 ...cont'd

REGION	Place of administrative residence (Excluding Afar and Somali Regions) (1=Tigray, 2=Amhara, 3=Oromiya, 4= Benishangul & Gambela, 5=SNNP, 6=Dire Dawa & Harari, 7= Addis Ababa)
RESIDENCE	Type of place of residence (0=urban, 1=rural)
RELIGION	Type of religion that husband spiritually follows (Orthodox=1, Muslim=2, others (including Protestant, Catholic and traditional) =3)
EDUCATION	Highest education level husband completed (0=no education, 1=primary, 2=secondary or higher)
OCCUPATION	Husband's occupational status (1=Non-Agricultural(including unemployed); 2=Agricultural)
MEDIA	Husband's access to radio, TV or news paper 1=not at all (includes no access to radio, TV and news paper) 2=infrequently (includes less than once a week access to radio or TV or news paper) 3= frequently (includes at least once a week or almost every day access to radio or TV or news paper)
DENOM	A constant variable, having the value of 1 and used for the denominator (n_{ij}).

Results and Discussions

The majority (74.6 percent) of husbands (Table 2) reported that they approve family planning. In bivariate analysis husbands who approve family planning showed positive statistical association towards couples' contraceptive use as compared to husbands who did not approve family planning ($p < 0.001$, Table 2). Multivariate analysis (Table 3) also showed that husbands who approve family planning at the time of survey have higher (4.46 times) odds of being users of family planning as compared to those who did not approve family planning. Moreover, the response obtained from most of the in-depth interviews showed that husbands' approval of family planning is crucial to use contraceptives effectively and for continuation of couples' contraceptives use.

For instance, one of the in-depth interview respondents (currently contraceptive user, 42 years old farmer, and father of four children) expressed his opinion regarding the influence of husbands' approval of family planning on current contraceptive use as follows:

My wife is currently contraceptive user (injectable). I accept her ideas about family planning. My acceptance ...helps my wife to use it correctly. In addition to this, my support is very important to know her interest...and to change other methods suitable for her health and that is the case...she changed pills.

The respondent's opinion shows that husbands' approval of family planning determines not only current use of contraceptives but also its effectiveness.

Both quantitative and qualitative findings had also authenticated the evidence of Ezech's (Ezech, 1997) research in Ghana who argued that husbands' approval of family planning enhances couples' contraceptive use. The influence of husbands' approval of family planning on couples' contraceptive use was also well described in the studies of Mohammed and his colleagues (2005) and Gebirekidane (2002).

Most husbands (65.7%) who are currently users of contraceptives reported that they discuss family planning issues with their partners. The bivariate analysis showed that couples' discussion regarding family planning was found to have a significant association with couples' current contraceptive use ($\chi^2 = 116.424$, $df = 1$, $p < 0.001$, Table 2). Girma's study (1997) also documented that couple communication on family planning had statistically

significant relationship with contraceptive use. Similar other studies also showed that couple communication regarding family planning is positively associated with contraceptive use in Ghana (Salway, 1994); in Bangladesh (Kamal, 1999) and in Nigeria (Lozare, 1991; Oni and McCarthy, 1991).

Multivariate analysis (Table 3) also showed that husbands who discuss family planning with their wives were more likely to use family planning. The finding revealed that couple communication regarding family planning positively influences contraceptive using status of the couple. This finding also demonstrated that husbands who discuss family planning with their partners were found to have positive attitude towards contraceptive use as compared to their counterparts. In addition to this, the majority of respondents from in-depth interviews described positive influence of couple discussion regarding family planning on couples' contraceptive use.

In the in-depth interview a 46 years old trader, father of a ten years old child, expressed his opinion about the influence of couple communication on current contraceptive use as follows:

I have only one child. My wife has done it intentionally by discussing with me...as family planning helps us to space our children. My wife has been using a contraceptive (pills). And we have planned to have a second child in the near future because my child is ten years old and we have enough capital for...

Some researchers' findings consistently demonstrated that men and women who discuss family planning issues with their partners are more likely to use contraceptives, to use them efficiently (Desilva, 1994) and to have fewer children (Lasee and Becker, 1997; Stycos, 1996). The study carried out in Ghana (Ezeh, 1997) showed that more frequent discussion among couples enhances contraceptive use. Furthermore, when men and women do not know their partners' fertility desires, attitudes about family planning or contraceptive preferences, the consequences lead to unintended pregnancies and unsafe abortions (Biddlecom *et al.*, 1997; Hardon, 1995; Salway, 1994).

On the other hand, most of contraceptive non-user respondents from in-depth interviews reported that they have no idea about family planning. The reason given to this was lack of knowledge and they never talked about

family planning with their partners due to their religious belief - 'God lets us to have many children.' A 48 years old farmer, father of six children, expressed his opinion as follows:

I believe that children are gifts of God...I don't have any knowledge about family planning. I never talked about it with my wife...

Becker has also found out that couples' joint decision-making forms the basis of family planning use "...because most sexual, family planning, and childbearing decisions are made or may potentially be made by both partners ..." (Becker, 1996)

In Nigeria, Adewuyi and Ogunjuyigbe's study showed that couple discussion regarding family planning is a significant factor that influences couples' use of contraceptives (Adewuyi and Ogunjuyigbe, 1998). The influence of couple communication regarding family planning on couple's contraceptive use was also well documented in Bawah (2002) and Mohammed and his colleagues (2005).

Results of the in-depth interviews also showed that men who have positive attitude towards family planning were those who had approved and discussed family planning with their wives.

Regarding age of husbands, the bivariate analysis (Table 2) revealed that husbands' age has statistically significant association with current contraceptive use of couples. On the other hand, in multivariate analysis husbands who are less than 25 and 35-44 years old have no statistically significant difference in using contraceptives at the time of survey (Model III, Table 3).

Concerning the number of children, the bivariate analysis showed that the number of living children has statistically significant association with current contraceptive use. The multivariate analysis also showed that husbands who had at least two children were more likely to use contraceptives than those who had at most one child (Model III, Table 3). Husbands who had more than five children have higher (4.33 times higher) odds of being users of family planning than those who had one or no child (Model III, Table 3).

Similarly, in Bangladesh, Mohammed and his colleagues noted that husbands who have five or more children have higher odds of using contraceptives than those who have no children (Mohammed et al., 2005). Likewise in Nigeria, Adewuyi and Ogunjuyigbe's study demonstrated that the number of living children was a significant factor that influences use of contraceptives (Adewuyi and Ogunjuyigbe, 1998).

Regarding husbands' highest level of education, the research analysis showed the presence of strong association between highest level of husbands' education and couples' current contraceptive use (Girma, 1997; Adewuyi and Ogunjuyigbe, 1998). Husbands with secondary and above level of education have higher odds of using contraceptives than those who have no education (Model III, Table 3).

Qualitative information from in-depth interviews also revealed that most of contraceptive user husbands have primary and above educational background while non users of contraceptive are those with no education. This clearly shows that education has positive influence on contraceptive use.

Concerning residence, more than half (51.7%) of currently contraceptive user husbands were residing in urban areas. The bivariate analysis showed that place of residence was found to have statistically significant association with couples' current contraceptive use (at $p < 0.001$, Table 2). Likewise Girma's study (Girma, 1997) found that place of residence had statistically significant relationship with contraceptive use.

With regard to occupational status, most contraceptive user husbands (60.7 percent) were working in non-agricultural occupational sectors. In bivariate analysis, husbands' occupation was found to have statistically significant association with couples' current contraceptive use. The finding concurs with Girma's study (1997). The multivariate analysis also showed that husbands who were in non-agricultural occupational sector were more likely to use contraceptives than those who work in the agriculture sector (Model III, Table 3).

Concerning access to media, the bivariate analysis showed that husbands' access to media has statistically significant association with couples' current contraceptive use ($p < 0.001$, Table 2). Husbands' exposure to mass media

shapes family planning decisions, and husbands' access to TV has positive influence on contraceptive use (Mohammed et al., 2005).

Insertion of attitudinal variables into the null model with the assumption that their effects are the same in each community resulted in a large decrease on the between-community variance. Moreover, significant community level variations are found in the multilevel model. The findings showed that more than 78% of the total variation in the tendency of using contraceptives is attributable to differences between communities.

Table 2. Attitudinal, demographic and socio-economic characteristics of husbands to current contraceptive use of couples and Pearson's Chi-Square test, Ethiopia, 2000 (N=1,107)

Independent Variables	Current contraceptive use			df	Chi-square value (X^2)	Significance p-value
	N	Currently non-user (%)	Currently user (%)			
Husband approves FP [†]				1	38.707	0.0000**
No	657	606 (92.2)	51 (7.8)			
Yes	450	300 (66.7)	150 (33.3)			
Couple discussion regarding FP [‡]				1	116.424	0.0000**
No	733	664 (90.6)	69 (9.4)			
Yes	374	242 (64.7)	132 (35.3)			
Age of husband				2	7.659	0.0217*
Less than 35	405	322 (79.5)	83 (20.5)			
35-44	372	293 (78.8)	79 (21.2)			
45+	330	291 (88.2)	39 (11.8)			
Number of living children				3	18.474	0.0004**
less than 2	259	213 (82.2)	46 (17.8)			
2-3	337	263 (78.0)	74 (22.0)			
4-5	244	209 (85.7)	35 (14.3)			
6+	267	221 (82.8)	46 (17.2)			
Region				6	120.896	0.0000**
Tigray	98	86(87.8)	12(12.2)			
Amhara	188	173(92.0)	15(8.0)			

Table 2 ...cont'd

Oromiya	235	191(81.3)	44(18.7)			
Benishangul Gumuz-Gambela	188	163(86.7)	25(13.3)			
SNNP	189	166(87.8)	23(12.2)			
Dire-Dawa & Harari	128	89(69.5)	39(30.5)			
Addis Ababa	81	38(46.9)	43(53.1)			
Place of residence				1	404.301	0.0000**
Urban	219	115(52.5)	104(47.5)			
Rural	888	791(89.1)	97(10.9)			
Religion				2	155.859	0.0000**
Orthodox	555	444(80.0)	111(20.0)			

Moslem	329	271(82.4)	58(17.7)			
Other	223	191(85.7)	32(14.3)			
Highest educational level				2	255.062	0.0000**
No education	611	567(92.8)	44(7.2)			
Primary	304	244(80.3)	60(19.7)			
Secondary	192	95(49.5)	97(50.5)			
Husband's occupation				1	289.653	0.0000**
Non-agricultural employee	270	148(54.8)	122(45.2)			
Agricultural employee	837	759(90.7)	78(9.3)			
Access to Media				2	21.859	0.0000**
Not at all	432	352(81.5)	80(18.5)			
Infrequently	370	298(80.5)	72(19.5)			
Frequently	305	256(83.9)	49(16.1)			
Total	1107	906(81.2)	201 (18.2)			

Note: † Indicates wives' perception; **= p < 0.001, *= p < 0.05 level of significance.

Table 3. Two level random intercept binary logistic regression estimates of the effects of different attitudinal, demographic and socio-economic characteristics on current use of contraceptives by couples, Ethiopia, 2000 (N= 1107)

Independent Variables	Model I			Model II			Model III		
	B	S.E.	Exp(B)	B	S.E.	Exp(B)	B	S.E.	Exp(B)
Intercept	-3.455***	0.210	0.03	-4.285***	0.441	0.01	-4.629***	0.568	0.01
APPROVAL of FP									
No (r) [†]			1.00			1.00			1.00
Yes	1.485***	0.257	4.42	1.488***	0.263	4.43	0.916***	0.269	2.50
Couple Discussion									
No (r) [†]			1.00			1.00			1.00
Yes	1.433***	0.243	4.19	1.403***	0.248	4.07	1.239***	0.256	3.45
Age of Husband									
less than 35				0.800**	0.363	2.23	0.526	0.375	1.69
35-44				0.800**	0.312	2.23	0.507	0.319	1.66
45 and above (r)						1.00			1.00
Number of Living Children									
Less than 2 (r)						1.00			1.00
2_3				0.327	0.294	1.39	0.694**	0.305	2.00
4_5				0.066	0.370	1.07	0.704*	0.384	2.02
6+				0.433	0.392	1.54	1.203***	0.410	3.33
REGION									
Tigray							-0.696	0.554	0.50
Amhara							-1.339***	0.434	0.26
Oromiya ©									1.00
Benishangul Gumuz-Gambela							-0.469	0.415	0.63
SNNP							-0.574	0.437	0.56
Dire Dawa-Harari							-0.137	0.453	0.87
Addis Ababa							-0.133	0.512	0.88
PLACE OF RESIDENCE									
Urban							0.234	0.442	1.26
Rural ©									1.00

Table 3 ...cont'd

RELIGION									
Orthodox®									100
Muslim							0.210	0.284	1.23
Others							-0.442	0.346	0.64
EDUCATION									
No education®									1.00
Primary							1.046***	0.295	2.85
Secondary and above							1.746***	0.360	5.73
OCCUPATION									
Agriculture (r)									1.00
Non Agriculture-employee							0.961***	0.359	2.61
MEDIA									
Not at all (r)									1.00
Infrequently							-0.137	0.260	0.87
Frequently							-0.103	0.295	0.90
Random effect variance	1.318***	0.397	3.74	1.359***	0.413	3.89	1.021***	0.345	2.78

Note: Level of significance: ***= $P < 0.01$, ** = $P < 0.05$, * = $P < 0.1$; † based on wife's perception (response) & r = stands for reference category; SE= standard error.

Conclusions

This article has examined factors that influence couples' current contraceptive use among currently married men of Ethiopia (excluding Afar and Somali regions) in the year of 2000 with particular focus on the extent to which attitudinal, demographic and socio-economic factors exert independent influence on couples' current contraceptive use.

All attitude determining variables (i.e., husbands' approval and couple discussion regarding family planning) are statistically significant at $p < 0.01$ level of significance in both bivariate and multilevel analyses which indicates that husbands who approve and discuss FP with partners have positive attitude towards contraceptive use. Similar findings are documented in Ethiopia, Girma (1997) and Gebirekidane (2002); in Bangladesh (Kamal, 1999) and Mohammed and his colleagues (2005); in

Ghana (Salway, 1994); and in Nigeria (Lozare, 1991; Oni and McCarthy, 1991).

The response obtained from the in-depth interview also showed that husbands' approval and couple communication regarding family planning is crucial to use it effectively and for continuation of couples' contraceptive use. The bivariate analysis of number of living children showed statistically significant association with couples' current contraceptive use. The multivariate analyses also showed that husbands who had at least two children are more likely to use contraceptives than those who had at most one child. Husbands who had more than five children have higher (4.33 times) odds of being current user of family planning than those who had one or no child.

Findings documented in Nigeria and Bangladesh provided evidence for the present finding. In Nigeria, Adewuyi and Ogunjuyigbe's study demonstrated that children ever born were found to be significant factors that influence use of contraceptive (Adewuyi and Ogunjuyigbe, 1998). In Bangladesh, Mohammed and his colleagues' study revealed that husbands who have no children have lower odds of using contraceptives than those who have five or more children (Mohammed *et al.*, 2005).

In bivariate analysis the observed relation showed strong association between highest level of husbands' education and couples' current contraceptive use, as documented in Girma's study in Ethiopia (Girma, 1997). Multilevel analysis also shows that husbands with primary and above level of education have higher odds of using contraceptives than those who have no education. In Nigeria, the same result was documented, explaining that the husband's highest level of education is one of the significant factors that influence husbands' use of contraceptive (Adewuyi and Ogunjuyigbe, 1998).

Finally, the inclusion of husbands' approval and discussion about family planning in the multilevel model resulted in a large decrease on the between-community variance even though they are individual-level variables. This shows the existence of variation in husbands' attitude towards contraceptive use across communities.

Recommendations

In general, the findings of the study have shown important policy implications. The author suggests that strengthened efforts should be made to enable men realize the positive impacts of their approval of and discussion about family planning. Any information and awareness creation concerning family planning should be given to both husbands and wives together. Furthermore, the author suggests that the existing family planning program should focus on changing men's attitude towards family planning and teaching couples about the importance of their joint decision-making.

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