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FACTORS AFFECTING CONTRACEPTIVE USE IN GHANA

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Summary. The relationships between selected demographic and socioeconomic variables and current use status of contraception were examined using logistic regression technique. Information on current contraceptive use was provided by 3156 out of 4488 currently married women aged 15–49 interviewed in the 1988 Ghana Demographic and Health Survey. Respondents' approval of family planning emerged as the most important predictor of current contraceptive use, followed by discussion of family planning with partner and level of education. As a policy measure, information, education and communication programmes on family planning should be intensified, particularly in rural areas. Female education, at least up to secondary level, should be given top priority.

Introduction

The persistently high levels of fertility in Ghana and most sub-Saharan African countries, accompanied by declining mortality, has given rise to an unprecedented and rapid growth in population, contributing to environmental degradation, poverty and a deteriorating quality of life for the majority of the people. The relatively high fertility in Ghana is largely attributed to a low level of contraceptive use (Ghana Statistical Service, 1989).

Contraceptive use is one of the four proximate determinants of fertility, the other three are proportions married, induced abortion and period of lactational infecundability (Bongaarts, 1978). The proportion of currently married women knowing any contraceptive method has increased from 68% in 1979 to 79·4% in 1988, while the proportion of currently married women currently using contraception has registered a slight increase from 9·5% to 12·9% during the same period. An examination of women's need for family planning to space or limit future births according to their intention to use contraception shows that, in 1988, 18·2% of women in union wanted no more children and were not using contraception; 47·7% of currently married women wanted to postpone the next birth or were uncertain about having another child and were not using contraception. Together, 65·9% of currently married women had an unmet need for contraception (Ghana Statistical Service, 1989). The wide gap between knowledge and use of contraception has generated considerable interest in the study of the factors that influence a couple's decision to use contraception. Contraceptive use is

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important not only for its effect on fertility but also because it has health implications for both mother and child.

The participation of Ghana in the World Fertility Survey Programme in the 1980s enabled in-depth analyses of the correlates of current contraceptive use. Appiah (1985) used the 1979 Ghana Fertility Survey data to investigate the relationship between region of residence, respondent's level of education, fertility preferences, accessibility of a supply source and current use of any contraceptive method; multiple classification analysis showed that travel time and region of residence were the more important factors affecting current use of contraception.

The first country report of the 1988 Ghana Demographic and Health Survey (GDHS) used bivariate analysis to examine the relationship between current use of contraception and selected background characteristics such as type of place of residence, region, level of education and number of living children. Using the 1988 GDHS data, Salway (1994) showed that urban residence, the wife's attitude towards family planning and discussion of family planning between spouses have independent significant effects on use of contraception.

The factors affecting contraceptive use can be organised under four main headings: (i) national; (ii) regional; (iii) community, kinship and household; and (iv) individual (National Research Council, 1993). These factors influence contraceptive use through their effects on the demand for and supply of births. For example, at the national level, social policy, the economic situation, government and donor support for family planning and family planning implementation play a crucial role in promoting contraceptive use. Collectively these factors at the national, regional, community, household and individual levels determine rates of contraceptive use in a given country.

This paper analyses, at the individual level, a number of socioeconomic factors associated with the use of contraception. Several institutions, both public and private, have been involved in the provision of family planning services since the inception of the Ghana National Family Planning Programme in May 1970. The Ministry of Health has the major responsibility for the provision of contraceptive services. Other non-governmental organisations such as Planned Parenthood Association of Ghana (PPAG), Christian Council of Ghana (CCG), National Catholic Secretariat, Ghana Registered Midwives Association and Ghana Social Marketing Foundation in the private sector also provide contraceptive services.

Family planning service provision operates at three levels: (1) family planning clinics run as an integral part of maternal and child health services of the Ministry of Health and some private and mission hospitals; (2) family planning clinics run by the PPAG and CCG; (3) distribution of non-prescription contraceptives through commercial outlets (pharmacies and drug stores) and field workers.

In 1988 the private sector was the major source of supplies, with the PPAG clinics supplying 20% of users and pharmacies and drug stores supplying about 33% (Ghana Statistical Service, 1989). Government hospitals were the most important source for clinic methods (IUD, female sterilisation) followed by PPAG clinics. Because most public and private hospitals, and clinics, pharmacies and drug stores are located in the urban areas, couples in the rural areas are relatively disadvantaged as far as provision of family planning services is concerned and depend more on field workers for their supply of contraceptives.

Abortion is not used as a method of family planning in Ghana. Since 1985 a new

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provision on abortion has been enacted to clarify the conditions under which an abortion may be safely and legally performed. The lack of data on abortion precludes linking contraceptive failure with abortion.

The suppressing effect of lactation on the resumption of ovulation after childbirth is of demographic interest, particularly in societies like Ghana where use of modern contraception is low. Breast-feeding is still nearly universal in Ghana. In 1988, 90% of women with births 2–3 months before the survey were still breast-feeding. In 1993, 97% of all children born in the previous 3 years were breast-fed for some time. Duration of breast-feeding is fairly long; on average, Ghanaian women breast-fed for 20 months in 1988, while the mean duration of any breast-feeding was 22 months in 1993. Although the two data sets are not strictly comparable, they suggest that breast-feeding patterns have not undergone any significant changes so as to reduce the interval between births or to increase the total number of births.

Material and methods

The data for this paper are derived from the 1988 GDHS which was conducted by the Ghana Statistical Service as part of the world-wide Demographic and Health Survey programme of the Institute for Resource Development/Macro Systems. Interviews were conducted with a representative sample of 4488 women aged 15–49 selected from 150 of the 200 census enumeration areas (EAs) of the Ghana Living Standards Survey. A detailed description of the sample design and implementation has been reported elsewhere (Ghana Statistical Service, 1989).

The analyses reported here are based on information on current contraceptive use provided by 3156 currently married women. The dependent variable was current use of a traditional or modern contraceptive method as reported by the women. Modern methods comprise the pill, IUD, injection, vaginal methods, condom and female sterilisation; traditional methods include periodic abstinence (rhythm), withdrawal and use of substances such as herbs. Current use of contraception is preferred to ever-use because of its greater precision and its more direct implications for family planning programmes.

Two separate analyses were performed. The first examines bivariate relationships between selected demographic and socioeconomic variables and current contraceptive use. The second analysis uses a multivariate stepwise logistic regression technique to assess the relative importance of the selected variables. The dependent variable is a dichotomous response variable that was assigned the value 1 if the respondent was using any contraceptive method and 0 if not using any method. The results of logistic regression analysis are given as regression coefficients, odds ratios (if greater than unity, the probability of being a current user is higher than that of being a non-user), and *p* values, to assess the relative importance of the selected variables.

Results

Table 1 shows the percentage distribution of currently married women aged 15–49 currently using contraception by selected demographic and socioeconomic characteristics. Current use is positively associated with respondent's age, number of living children and level of education. As expected, both the respondent's and her

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Table 1. Percentage of currently married women aged 15–49 currently using any contraceptive method by selected demographic and socioeconomic characteristics, Ghana, 1988

Characteristic	No. of women	% currently using contraception
Age of respondent (years)		
<25	767	9·6
25–34	1321	13·7
35+	1068	14·1
No. of living children		
0	261	3·8
1	546	10·1
2	572	11·7
3	470	14·3
4+	1307	15·8
Marital duration (years)		
<10	1334	11·0
10–19	1109	14·2
20+	713	14·2
Woman's education		
None	1467	8·5
Primary	512	12·1
Middle	999	16·8
Higher	178	28·7
Husband's education		
None	964	8·7
Primary	189	12·2
Middle	1269	12·8
Higher	544	22·2
Husband's occupation		
Never worked	48	14·6
Prof/tech/man/cler	458	19·9
Agric/domestic	1626	10·6
Sales and service	252	13·1
Skilled and unskilled	760	13·4
Religion		
Catholic	523	14·3
Other Christian	1550	14·6
Muslim	348	10·9
Traditional	306	11·8
Other	428	7·2
Ethnicity		
Twi	1096	13·5
Fante	369	13·6

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Table 1. (continued)

Characteristic	No. of women	% curerntly using contraception
Ethnicity		
Other Akan	144	6·9
Ga Adangbe	255	21·2
Ewe	488	14·1
Mole-Dagbani	423	9·0
Guan and other	379	9·8
Desire for more children		
Want more	2162	10·8
Want no more	721	20·2
Husband approves FP		
Disapproves	933	5·4
Approves	1453	20·4
Don't know	764	7·6
Discussed FP with partner		
Never	2024	6·9
Once or twice	545	16·9
More often	581	30·1
Respondent approves FP		
Disapproves	1041	2·8
Approves	2109	17·8
Electricity available in household		
No	2402	10·4
Yes	754	20·7
Residence		
Urban	961	19·6
Rural	2195	9·9
Region		
Western	279	8·2
Central	329	9·7
Greater Accra	360	27·2
Eastern	448	11·4
Volta	356	14·6
Ashanti	552	10·1
Brong Ahafo	401	12·0
Upper West, East, Northern	431	10·7
Total	3156	12·9

spouse's approval of family planning promotes higher current contraceptive use. Current use is directly related to frequency of discussion of family planning with the partner. Among currently married women, 7% of those who had never discussed family planning with their partner and 30% of those who had discussed family planning with their partner were currently using contraception.

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Table 2. Logistic regression of current use of any contraceptive method among currently married women aged 15–49 by selected demographic and socioeconomic factors, Ghana, 1988

Variable	Logistic coefficient	Odds ratio	*p* value
Level of education			
None†		1·000	
Primary	0·217	1·242	*
Middle	0·508	1·662	0·001
Higher	1·099	3·002	0·000
Region			
Western	−1·105	0·331	0·000
Central	−1·046	0·351	0·000
Greater Accra	0·012	1·012	*
Eastern	−1·131	0·323	0·000
Volta	−0·621	0·537	0·016
Ashanti	−1·135	0·321	0·000
Brong Ahafo	−0·881	0·414	0·000
Upper West, East, Northern†		1·000	
Discussion of FP with partner			
Never†		1·000	
Once or twice	0·636	1·889	0·000
More often	1·228	3·415	0·000
Respondent approves FP			
Disapproves†		1·000	
Approves	1·352	3·867	0·000
No. of living children	0·237	1·268	0·000
Constant	−3·725		0·000
Model χ^2		326·833	
Df		14	
Probability		0·000	

*Not significant at 5% level.
†Reference category.

Urban women were twice as likely to be using contraception as their rural counterparts. At the regional level, Greater Accra, the most urbanised region, has the largest percentage of currently married women currently using contraception, while the Western region registered the smallest percentage.

The logistic regression model (Table 2) shows that the three most important variables are respondent's approval of family planning, discussion of family planning with partner and respondent's level of education. The other explanatory variables, namely, respondent's age, type of place of residence, religion, ethnicity, desire for more children, marital duration, availability of electricity in the household, husband's approval of contraception, husband's education and occupation, have no significant effects on current use of contraception.

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The most important explanatory variable is respondent's approval of family planning. Currently married women who approved of family planning were almost four times as likely to practise contraception as those who did not approve of family planning. The analysis also shows that discussion of family planning with partner, used as a proxy for husband–wife communication and decision making, was positively associated with contraceptive use. Married women who discussed family planning with their partners were three times as likely to be current users of contraception as compared to their counterparts who had never had such discussion.

Table 2 also shows the significant effect of women's educational attainment on current contraceptive use. Currently married women who have higher education were more likely to be current contraceptive users, the odds ratio being three times higher for such women compared with their uneducated counterparts. However, there is no significant difference in current contraceptive use between women with primary education and those without any formal education.

The respondent's number of living children has a positive effect on current use of contraception. This is to be expected in view of the positive relationship between fertility and infant mortality. The probability of a subsequent birth increases significantly following the death of the last child or earlier child death experience (Oppong-Nkrumah, 1994).

Discussion

This paper examines the relationship between selected demographic and socioeconomic variables and current use of contraception. Respondent's approval of family planning, discussion of family planning with partner and level of education emerge as the most important explanatory variables. On the other hand, respondent's age, rural–urban residence, religion, ethnicity, desire for more children, marital duration and availability of electricity in the household have no significant effects on current use of contraception.

It is surprising that sociocultural variables such as religion and ethnicity do not have any significant effect on current use of contraception. A possible explanation is that, once a woman experiences higher education her ethnicity and religious affiliation do not significantly affect her current contraceptive use.

Respondent's approval of family planning is the most important predictor of current use of contraception. This is to be expected because respondents who approve of family planning are more likely to ensure that their favourable attitude is translated into high use of contraception.

Discussion of family planning with partner was positively associated with current use of contraception. This finding is in agreement with other studies (Oni & McCarthy, 1991; Salway, 1994).

In general, current use of contraception increases with increasing female education (Appiah, 1985; National Research Council, 1993). The model, however, shows no significant difference in current contraceptive use between currently married women with primary education and their uneducated counterparts. The curvilinear relationship found between fertility and female education in Ghana and some sub-Saharan African countries may be due in part to a relatively low level of contraceptive use among

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women with primary education who have largely abandoned traditional practices, such as prolonged breast-feeding and sexual taboos after childbirth, with their compensating influences on fertility.

The effects of the respondent's characteristics predominate over those of her spouse. Husband's characteristics such as approval of contraception, level of education and occupation are insignificant when respondent's characteristics were entered into the model. In particular, husband's education has no significant effect on respondent's current contraceptive use (Appiah, 1985; Ullah & Chakraborty, 1993). However, spousal consent is very important to service providers. A study of family planning service delivery points in Ghana indicated that, although clients wanted more family planning information, service providers were reluctant to give the information for fear of the husband's reprisal (Ghana Statistical Service, 1994). Husband's approval of contraception in this study is as perceived by the wife.

These findings bear some important policy implications. Respondent's approval of family planning clearly stands out as the most important predictor of current use of contraception. The Ghana National Family Planning Programme should intensify not only its information, education and communication programmes on family planning to cover particularly the neglected rural areas but also, more importantly, adjust them to suit local conditions. In order to win more clients there is need for a continuous dialogue on the various contraceptive methods between service providers and clients so as to allay some of the clients' fears about supposed side effects of contraception. Among non-users of contraception who would be unhappy if they became pregnant, 10% gave health concerns as reason for non-use (Ghana Statistical Service, 1989).

The importance of husband–wife communication in relation to fertility decision making is also emphasised by these findings. Ghanaian society is largely male-dominated, even with regard to female reproductive health, so men's involvement in family planning can therefore hardly be over-emphasised. One of the crucial factors which has hindered successful implementation of the family planning programme in Ghana is minimal male involvement. This is perhaps not unrelated to male fertility preferences. The 1988 GDHS indicated that men preferred more children than their wives: 7·6 compared with 5·5 children. The establishment of more PPAG groups for men at work-places should help to improve communication between spouses and thereby promote more discussion on family planning and other health related issues.

The relatively low fertility of women with higher education is largely attributable to a high level of contraceptive use. The findings suggest that a certain education threshold is necessary for women to use contraception. Increasing female education is not only good in itself but also for improving the status of women. Females should be given at least secondary education so as to improve the effectiveness of contraceptive use that will lead to lower fertility and better health. There is a need also for periodic analysis of family planning service delivery points to complement the supply side of the family planning equation.

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