GENDER RELATIONS: HUSBAND-WIFE FERTILITY AND FAMILY PLANNING DECISIONS IN KENYA

SITAWA R. KIMUNA AND THE LATE DONALD J. ADAMCHAK

Department of Sociology, Kansas State University, Manhattan, Kansas, USA

Summary. Although Kenya's fertility rate has declined from 6.7 births per woman in the mid-1980s to 5.4 births per woman in 1993 (NCPD, 1994), population growth is still high, yielding a doubling time of 35 years. This study uses the 1993 Kenya Demographic Health Survey data collected from 1257 couples to examine the socioeconomic and sociodemographic characteristics of married men and women and their communication with their spouses over fertility and family planning decision-making practices. The logistic regression analysis shows that education for both men and women, discussion of fertility and family planning between spouses, male approval of use of contraception and male family size desires are important factors that influence ever-use of family planning.

Introduction

Kenya's family planning programmes were launched and integrated into the maternal and child health division of the Ministry of Health in 1967 (NCPD, 1994). These programmes are the oldest in sub-Saharan Africa (Njogu, 1991). There are 10,000 community-based distribution centres of family planning (FP) information and services (Barasa & Karani, 1991, quoted in NCPD, 1994). Over half of Kenyan women live within one kilometre of a modern method provider. Despite this, it is only recently that fertility decline started taking place in Kenya. The 1993 Kenya Demographic and Health Survey (KDHS; NCPD, 1994) indicates that Kenya's population growth rate, known to be among the highest in the world, is declining. Kenya's total fertility rate declined from 6.7 births per woman in the 1980s to 5.4 births per woman in 1993 (NCPD, 1994), a 20% decline. Therefore, it is fair to conclude that Kenya is experiencing a major demographic breakthrough.

Despite the observed success in Kenya's fertility rate, there are challenges. The KDHS (NCPD, 1994) data show that more than a third of married women have unmet need for family planning. They want to either space their births or stop childbearing, but are not using family planning. Any hope of moderating future population growth will require lower fertility and more effective family planning

programmes. Although 33% of married women are using a method of contraception (27% are using a modern method), there is a large pool of potential users. Therefore, meeting this unmet need for services would have a major impact on Kenya's fertility and population trends.

If, as is generally believed, wider availability of family planning information and services leads to higher levels of contraceptive use, then the question arises as to who becomes a user or non-user. Researchers writing on fertility behaviour and fertility decline in Kenya (Njogu, 1991; Omondi, 1997; Lasee & Becker, 1997; Dodoo, 1998) and elsewhere in sub-Saharan Africa (Mbizvo & Adamchak, 1991; Ezeh, 1993; Bankole, 1995) have argued that male participation in family planning decisions affects fertility rates. However, lack of communication between couples may be an obstacle to the use of family planning other than men's opposition *per se*. In addition, couples with higher socioeconomic status (occupation, education, etc.) may be more willing to use contraception.

Njogu (1991) examined trends in contraceptive use in Kenya comparing data between 1977–1978 and 1989 at both the aggregate and the subgroup level. He found that better educated, urban women were more likely to contracept during both periods. These findings indicate that the decline in Kenya's fertility rate could be partly due to education of females, which also has been known to delay marriage. Using data relating to 1129 husbands and wives from the KDHS that was conducted between December 1988 and May 1989 (NCPD, 1989), Omondi-Odhiambo (1997) suggested that couples should be encouraged to talk because contraceptive use was more likely if couples had thought about family planning, and discussed it explicitly. Dodoo's (1998) study reveals the significance of men and women in reproductive decisions. While he indicates an absence of an effect for family planning discussions in his study, he suggests further investigation about the dynamics of the family planning decision-making process, and how spousal communication factors into this dynamic.

Elsewhere in sub-Saharan Africa, Bankole (1995) noted that men's influence on fertility decisions is so strong that it cannot be ignored, or captured by proxy information from the wife. Moreover, even when wives are educated and motivated to use contraception many fail to translate their preferences into actual behaviour, because their husbands may be opposed. In a study of a sample of men in Zimbabwe, Mbizvo & Adamchak (1991) noted that while the majority of men claimed that the responsibility for obtaining information on family planning and contraception rested with their wives, the actual decision to use or not to use contraception remained with them. Ezeh (1993) used DHS data from married couples in Ghana to examine the roles of men and women within a couple in fertility decision-making. The focus was on the extent to which spouses influence each other's contraceptive attitudes in order to derive a precise measure of the power relationship between spouses with respect to reproductive behaviour. He found that in Ghana, the wife's contraceptive attitude was affected by the husband's educational level and fertility preferences.

Although the effects of socioeconomic and demographic characteristics on family planning decisions have been studied, this study measures the extent to which observed differences in the use of family planning are due to couples discussing or not discussing family planning. Therefore, it goes beyond many previous studies that examined fertility and family planning trends in Kenya. In addition, it examines other factors that are likely to be important in the discuss/not discuss and use/not use relationships. Thus, it would be appropriate to attribute part of the recent fertility decline in Kenya to the increased use of family planning methods by determining what factors explain overall change in the use of family planning. In a country such as Kenya, where family planning is used both for birth spacing and stopping childbearing (Okojie, 1994), an understanding of ever-use of family planning is important. Moreover, focusing on the couple offers a unique opportunity to explore how the separate activities and experiences of husbands and wives are unified to produce one outcome. By looking at how spouses' attitudes and preferences influence and are influenced by one another, a better understanding of the fertility and family planning decision-making process may be gained.

Previous research has not fully examined the relationship between communication and use of family planning methods and fertility decisions. Furthermore, most of the research relating to gender relations and fertility and family planning decisions does not focus on the socioeconomic status and sociodemographic characteristics of couples who discuss or who do not discuss fertility and family planning. Previous studies have shown, for example, that education and type of residence (rural/urban) are important determinants of contraceptive use (Njogu, 1991; Omondi-Odhiambo, 1997; Lasee & Becker, 1997). However, this study examines whether communication *per se* accounts for the observed increase in ever-use of family planning in Kenya and hence the observed decline in fertility rate.

The objective of this study is to examine the relationship between communication and family planning decisions. The underlying assumption is that couples who discuss fertility and family planning are more likely to use any family planning method than those who do not discuss fertility and family planning. Beckman (1983) indicates that there is a negative relationship between desire for more children and couple discussion, and a positive relationship between couple communication and use of contraception, as well as a negative relationship between desire for more children and contraception.

Data and methods

This research uses a nationally representative sample of 1257 matched couples from the 1993 Kenya Demographic and Health Survey (KDHS) to determine the socioeconomic and sociodemographic characteristics of married men and women in relation to their communication with their partners over fertility and family planning decisions. Traditionally, family planning programmes and surveys have relied almost exclusively on women's responses (Omondi-Odhiambo, 1997). However, recently KDHS data on couples and men have become available.

The logistic regression analysis focuses on one dichotomous dependent variable: ever-use/never-use of any family planning method. The intention is to examine the effects of socioeconomic status and sociodemographic characteristic differences of women and men and whether they discuss fertility and family planning on ever-use/never-use of contraception. Several social, economic and demographic variables related to family planning are included in the analysis and are explained below.

Selected independent variables

It is well known that family planning use varies by age. In this study, age is categorized into three age groups: 15–25, 25–34 and 35 and over. Place of residence is important because past studies suggest that it has a substantial impact on contraceptive use (Tuladhar, 1985). Urban areas in many developing countries are often associated with higher education, and better access to medical services, family planning and other social services. Consequently, the proportion of those who use contraceptives will be higher in urban areas than in rural areas (Njogu, 1991).

Other studies consistently show that the wife's education has a strong positive effect on contraceptive use (Gomes, 1984). Education is expected to increase awareness and use of family planning. The assumption is that educated women may desire fewer children than their less educated counterparts (Oppong, 1983). Respondent's education is categorized here as: completed primary or less, and some secondary and above.

Discussion of family planning with partner is important because it is instrumental in the decision to regulate fertility and hence the use of contraception. Caldwell & Caldwell (1990) have noted that it is rare and difficult in many African societies to discuss sexual topics with spouses. The variable used in this analysis is whether or not the couple had ever discussed fertility and family planning.

Desire for children is coded into three categories indicating whether the respondent's partner desires the same number of children, more children or fewer children. This variable has been used in other studies as a measure of a couple's motivation to practise fertility control for 'stopping' or for 'spacing' (Njogu, 1991; Dodoo, 1998). It is expected that respondents whose spouses want fewer children are more likely to use a family planning method than those whose spouses want more or the same number of children.

Work is a key variable because it can influence household decisions. The variable is a measure of a woman's status in the dynamics of fertility and family planning decision-making. Therefore, the work variable distinguishes female respondents who are currently working and therefore more likely to ever use contraception than those who are not working. Moreover, women with input on economic issues may initiate discussion and therefore are able to come to an agreement with their partners about fertility and family planning issues.

Model 1 and Model 2, respectively, are male and female models in the logistic regression analysis. Model 3 extends the two models above to include selected measures of both males and females. Table 1 shows definitions and categories of the variables used in the analysis.

Results

Table 2 shows the percentage distribution of selected variables for males and females that were used in the regression analysis. The variable distributions indicate that

Variable	Respondents	Definition and categories	
Dependent	Male/female	Ever-use of any method 0=never-used	
Independent	Male/female	Age 0=15-24 1=25-34 2-25 + 34	
	Male/female	2=33+ Residence 0=rural 1=urban	
	Male/female	Education 0=primary completed or less 1=some secondary or more	
	Male/female	Discussed FP with partner 0=did not discuss 1=discussed	
	Male/female	Respondent approves of FP 0=disapproves 1=approves	
	Male	Wife's desire for children 0=both want same number 1=wife wants more 2=wife wants fewer	
	Female	Husband's desire for children 0=both want same number 1=husband wants more	
	Female	Currently working 0=not working 1=working	

Table 1. Variables used in the analysis

males have more education than their wives: 33.8% and 19.7% with some secondary education or more, respectively. The table also shows that males (71.0%) are more likely to have ever used any method of family planning than females (52.2%). Data show that the difference between male (70.4%) and female (66.1%) respondents who discussed family planning with their partners is 4.3%, whereas the difference between male (72.4%) and female (70.9%) respondents who said they wanted the same number of children as their partners is only 1.5%. The vast majority of males (91.0%) and females (89.8%) said they approved of family planning.

Table 3 shows the logistic regression analysis (odds ratios) estimating three models of ever-use of family planning with selected independent variables for male respondents (husbands), female respondents (wives) and a combined model of male and female respondents (spouses). Males with some secondary or higher level of education

	Males		Females	
Variable	n	Per cent	n	Per cent
Ever-use of any FP method				
Never-used	364	29.0	601	47.8
Ever-used	893	71.0	656	52.2
Age				
15-24	57	4.5	344	27.4
25-34	472	37.5	573	45.6
35+	728	57.9	340	27.0
Residence				
Rural	1098	87.4	1098	87.4
Urban	159	12.6	159	12.6
Educational level				
Primary or less	832	66.2	1009	80.3
Some secondary+	425	33.8	248	19.7
Discussed FP with partner				
Not discussed	369	29.6	400	33.9
Discussed	878	70.4	780	66.1
Respondent approves of FP				
Disapproves	112	9.0	127	10.2
Approves	1126	91·0	1114	89.8
Respondent's partner's desire for children				
Both want same number	741	72.4	644	70.9
Wants more	122	11.9	168	18.5
Wants fewer	161	15.7	96	10.6
Respondent currently working				
Not working	_		559	44.5
Working	_		697	55.5
n	1257	100.0	1257	100.0

 Table 2. Percentage distribution for male and female demographic and socioeconomic characteristics, Kenya DHS, 1993

are 1.35 times (p<0.01) more likely to have ever used a family planning method than those who had completed primary education or less. This finding confirms Gomes' (1984) research on Kenya, which showed that education has a negative effect on fertility. The likelihood of ever-use of family planning is 1.86 times (p<0.001) higher if the male respondents discussed family planning with their partners than if there was no discussion. The fact that discussion of family planning is positive and highly significant net of other variables confirms the hypothesis that spousal communication over fertility and family planning increases ever-use of contraception.

Male respondents' ever-use is 1.87 times (p<0.001) more likely if they approved of family planning. Husbands whose wives want fewer children than themselves are significantly less likely to have ever used a family planning method (odds ratio=0.53, p<0.001). If the wife desires more children than her husband, the husband is 1.27

	Odds ratio			
Variable	Male model	Female model	Male/female model†	
Age				
15–24 (r)	1.00	1.00	1.00	
25-34	1.02	1.25*	1.29*	
35+	1.23	1.15	1.19	
Residence				
Rural (r)	1.00	1.00	1.00	
Urban	1.18	1.54***	1.41**	
Female education				
Primary or less (r)	_	1.00	1.00	
Some secondary+	_	1.49***	1.35**	
Male education				
Primary or less (r)	1.00	_	1.00	
Some secondary+	1.35**	—	1.23*	
Discussed FP with partner				
Not discussed (r)	1.00	1.00	1.00	
Discussed	1.86^{***}	1.52^{***}	1.49***	
Respondent approves of FP‡				
Disapproves (r)	1.00	1.00	1.00	
Approves	1.87***	1.45*	1.62*	
Partner approves of FP‡				
Disapproves (r)	1.00	1.00	1.00	
Approves	1.26	1.66***	1.45^{a}	
Female reporting on partner's desire for children				
Both want same number (r)	_	1.00	1.00	
Husband wants more		0.76^{a}	0.09	
Husband wants fewer	_	1.23	1.01	
Male reporting on partner's desire for children				
Both want same number (r)	1.00	—	1.00	
Wife wants more	1.27	—	1.23	
Wife wants fewer	0.53***	_	0.71*	
Female currently working§				
Not working (r)		1.00		
Working	—	1.11	_	

 Table 3. Logistic regression analysis of the odds of ever using any method of contraception among couples, by selected variables, Kenya DHS, 1993

[†]For the combined male/female model, age, residence, discussed FP with partner and ever-use of FP are female respondent variables. [‡]The partner approves of FP variable is the male respondent variable, and the respondent approves of FP is the female respondent variable in the female model and in the combined male/female model. §Since the female currently working variable did not show a significant relationship in the female model, it was deleted from the combined male/female model. (r) indicates the reference category for each variable. ^ap<0.07; *p<0.05; **p<0.01; ***p<0.001.

times more likely to have ever used contraception compared with both partners agreeing on the number of children, but it is not statistically significant. These relationships indicate male dominance in the fertility and family planning process. That is, if wives want fewer children than their husbands, the husbands report that they are significantly less likely to have ever used contraception (in order to meet their [husbands'] desired family size). In addition, if the male respondents approve of family planning they are significantly more likely to have ever used contraception. However, there is no difference if the partner (wife) approves or disapproves of family planning on ever-use (a non-significant odds ratio of 1.26).

The odds ratios for female respondents also show a highly significant relationship between discussion of family planning with partner and ever-use of contraception (Female model, 2nd column of Table 3). Those women who reported that they discussed family planning with their partner are one and a half times more likely to have ever-used (p < 0.001). Whereas the male model shows that age is not a factor in the use of contraception, the females who are aged 25-34 years are 1.25 times (p < 0.05) more likely to have used contraception than the reference group, and more likely than the age 35 and above group. Similarly, the male model shows no differences in the use of contraception between those males residing in the rural areas and urban areas. However, the female model shows that those females who reside in the urban areas are 1.54 times (*p*<0.001) more likely to have used contraception than those who reside in the rural areas. Similarly, females who have a secondary or higher education are 1.49 times (p < 0.001) more likely to have ever-used, and those who approve use of family planning are 1.45 times (p < 0.05) more likely to have used contraception compared with those who do not approve of family planning. However, women's husbands' approval of family planning (odds ratio=1.66, p < 0.001) is more important than women's approval of family planning (odds ratio=1.45, p < 0.05) on ever-use. Moreover, women reporting on their husbands' desire for children shows the male influence in the process as husbands who want more children are significantly less likely to have ever-used, and husbands who want fewer children than their wives are 1.23 times more likely to have ever-used, but this latter relationship is not statistically significant.

The literature supports the negative relationship found between husbands' desire for more children and use of contraception (Beckman, 1983; Njogu, 1991; Ezeh, 1993; Dodoo, 1998). However, these same studies also support a negative relationship between wife's desire for fewer children and a greater likelihood of use of family planning. On the other hand, the opposite relationship was found in the male model, that wives who want fewer children are significantly less likely to have ever used contraception, the husband therefore dominating the process in order to meet his fertility desires. Finally, and somewhat surprisingly, there is no difference between working and non-working women on the ever-use of contraception. In addition, women's work was operationalized into a three-category variable with the reference category equal to not working, and two occupational categories: lower level occupations (agriculture, domestic, services and unskilled labour), and higher level occupations (professional, technical, managerial, clerical, sales and skilled labour). Odds ratios are 1.04 and 1.07 for lower and higher occupations, respectively, and are not statistically significant. Whether a two- or three-category variable was used, women's work (net of all other variables) does not predict ever-use of contraception. Regardless of work/occupational status, the status of women is low in relation to this contraceptive outcome.

The third column of Table 3 presents odds ratios for the combined male/female model, which includes variable indicators for both males and females. The dependent variable, ever-use of family planning, age, residence and discussed family planning with partner are female respondent variables. 'Respondent approves of family planning' is the female respondent variable, and 'partner approves of family planning' is the male respondent variable. Women aged 25 to 34 years, women's urban residence and women's and men's secondary and higher education are all significantly associated with a greater likelihood of ever using contraception. And these variable relationships hold from one of the two previous models discussed, although the level of significance declines somewhat for all except age.

One of the major independent variables in this analysis – 'discussed family planning with partner' – was consistently strong across all three models. Net of all other independent and control variables, and whether the male or the female reports, discussion of family planning with partner significantly increases the likelihood of ever using contraception by one and a half times or more.

The gender-specific variables approving of family planning (respondent female; partner male) are both positive and significant in the combined model; that is, those who approve of family planning are more likely to have ever used family planning. However, in the male and female models, the male's approval is more influential than the female's in the increased likelihood of ever using contraception. Finally, there is virtually no relationship for the female reporting on partner's desire for children in the combined model; however, the relationship for male's reporting on partner's desire for children holds. Wives who want fewer children than their husbands are significantly less likely to have ever used contraception, supporting the notion of male influence or dominance: that if the husband desires more children than his wife, he will not allow contraception to be used (odds ratio=0.71, p<0.05).

Discussion and conclusions

It is interesting to note that the proportion of men reporting ever-use of any method of family planning is higher (70%) than that of women (52.2%). It is suggested that this difference may be due to polygyny and multiple partner relationships. Not all ever-use of contraception has occurred within the marital dyad.

It is surprising to find no difference in the use of any method of family planning among men in the three age categories. Although men aged 35+ were 1.23 times more likely to have ever-used than men aged 15-24, the relationship was not statistically significant. Nevertheless, as expected, those couples who discuss family planning, those who approve of the use of family planning, and those with higher levels of education have a statistically significant increased likelihood of ever using family planning. Females who lived in urban areas were more likely to have ever-used, but there is no difference for men.

Male's reporting on partner's desire for children demonstrates, probably best of all variables, the subordinate position of women. If wives want fewer children than their husbands, the likelihood of ever using contraception is significantly less than when both husband and wife want the same number of children. And this relationship holds from the male model to the combined male/female model. This indicates that husbands prevent the use of contraception in order to achieve the number of children they want. Consistent with this, there is no difference in the likelihood of ever using contraception based on women working or not working.

Despite the fact that research on spousal perceptions, and especially discussion including males, is limited, similar findings have been reported. For example, Hill, Stycos & Back (1959) studying 318 Puerto Rican couples found that one-third of women identified their perception of their husbands' attitudes as the reason for not using family planning. More recently, research by Mbizvo & Adamchak (1991), Ezeh (1991), Salway (1994), Lasee & Becker (1997) and Omondi-Odhiambo (1997) has shown that husbands' and wives' communication is a predictor of family planning practice.

This study corroberates Njugo's (1991), Omondi-Odhiambo's (1997) and Lasee & Becker's (1997) suggestions that Kenyan men do participate in family planning decision-making. The recent fertility decline may, in part, be due to changes in men's attitudes towards family planning in Kenya (Cross, Obungu & Kizito, 1991; Robinson, 1992). Men could be playing a larger role, especially due to the changing economic climate in Kenya and the rapidly changing cultural and social values (Robinson, 1992). However, these findings suggest that spousal communication is very important and consistent across models in increasing contraceptive prevalence, as is higher level of education for both men and women. They also suggest that husbands' approval of family planning and husbands' family size desires are more important than those of wives, and this male perspective may have a very important effect on the use or non-use of contraception.

Finally, it would be informative for future research to examine differences in husband and wife communication by ethnic group and region, and to continue to investigate differences by socioeconomic status. Furthermore, in addition to the quantitative research that produced these aggregate level results, qualitative research is needed to explore the content of decision-making relationships between partners in order to obtain a better understanding of the influence of gender on contraceptive use and fertility. Moreover, activities to promote family planning in Kenya should increasingly focus on the importance of communication between husbands and wives. Men should also be continuously targeted by family planning information, education and communication efforts.

References

BANKOLE, A. (1995) Desired fertility and fertility behaviour among the Yoruba of Nigeria: A study of couple preferences and subsequent fertility. *Stud. Fam. Plann.* **49**(2), 317–328.

BARASA, J. & KARANI, S. (1991) An Inventory of CBD Family Planning Services. National Council for Population and Development (NCPD) and United Nations Population Fund (UNFPA), Nairobi, Kenya.

BECKMAN, L. J. (1983) Communication, power, and the influence of social networks in couple decisions of fertility. In: *Determinants of Fertility in Developing Countries*, Vol. 2, pp. 415–443. Edited by R. D. Lee & R. A. Bulatao. Academic Press, New York.

- CALDWELL, J. C. & CALDWELL, P. (1990) Cultural forces tending to sustain high fertility. In: *Population, Growth and Reproduction in Sub-Saharan Africa: Technical Analyses of Fertility and its Consequences.* Edited by G. T. F. Acsadi, G. Johnson-Acsadi & R. A. Bulatao. The World Bank, Washington, DC.
- CROSS, A. R., OBUNGU, W. & KIZITO, P. (1991) Evidence of a transition of lower fertility in Kenya. *Int. Fam. Plann. Perspect.* **17**(1), 4-7.
- DODOO, F. N.-A. (1998) Men matter: additive and interactive gendered preferences and reproductive behaviour in Kenya. *Demography* **35**(2), 229–242.
- EZEH, A. C. (1993) The influence of spouses over each other's contraceptive attitudes in Ghana. *Stud. Fam. Plann.* **24**(3), 163–174.
- GOMES, M. (1984) Family size and educational attainment in Kenya. *Popul. Dev. Rev.* 10(4), 647–660.
- HILL, R., STYCOS, J. M. & BACK, W. K. (1959) *The Family and Population Control: A Puerto Rican Experiment in Social Change.* University of North Carolina Press, Chapel Hill, NC.
- LASEE, A. & BECKER, S. (1997) Husband-wife communication about family planning and contraceptive use in Kenya. *Int. Fam. Plann. Perspect.* 23(1), 15–20.
- MBIZVO, M. T. & ADAMCHAK, D. J. (1991) Family planning knowledge, attitudes, and practices of men in Zimbabwe. *Stud. Fam. Plann.* 22(1), 31–38.
- NCPD (1994) *Kenya Demographic and Health Survey 1993.* National Council for Population and Development (NCPD), Central Bureau of Statistics (CBS) (Office of the Vice President and Ministry of Planning and National Development [Kenya]) and Macro International Inc. (MI), Calverton, Maryland.
- NCPD (1989) Kenya Demographic and Health Survey 1989. National Council for Population and Development (NCPD), Ministry of Home Affairs and National Heritage and Institute for Resource Development/Macro Systems Inc. (IRD/Macro), Columbia, Maryland.
- NJOGU, W. (1991) Trends and determinants of contraceptive use in Kenya. *Demography* 28(1), 83–99.
- OKOJIE, C. E. E. (1994) The relationship between women's status, proximate determinants and fertility in Nigeria. In: *Women's Position and Demographic Change in Sub-Saharan Africa.* Edited by P. Makinwa & A-M. Jensen. International Union for the Scientific Study of Population, Liege, Belgium.
- OMONDI, O. (1997) Men's participation in family planning decisions in Kenya. *Popul. Stud.* **51**(1), 29–40.
- OPPONG, C. (1983) Women's roles, opportunity costs, and fertility. In: *Determinants of Fertility in Developing Countries*, pp. 547–589. Edited by R. A. Bulatao & R. Lee. Academic Press, New York.
- ROBINSON, W. C. (1992) Kenya enters the fertility transition. Popul. Stud. 46(3), 445-457.
- SALWAY, S. (1994) How attitudes toward family planning and discussion between wives and husbands affect contraceptive use in Ghana. *Int. Fam. Plann. Perspect.* **20**(2), 44–47.
- TULADHAR, J. M. (1985) Determinants of contraceptive use in Nepal. J. biosoc. Sci. 17, 185–193.