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Current use of contraception among the Pare of Northern Tanzania:

Do wife-husband relations matter or is it women's empowerment?

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Abstract

Current literature on the adoption of contraception in sub-Saharan Africa indicates that the empowerment of women within the marital union has a positive impact on the adoption of contraception and that the link of empowerment to contraception is through spousal communication. This paper represents a step beyond these works by broadening the concept of spousal communication and by considering the effects of spousal communication and women's empowerment as separate factors on the adoption of contraception. The study is based on ethnographic and survey data from a case study of matched wives and husbands in two Pare villages in Northern Tanzania. Results indicate that while the empowerment of women (as measured by their level of education and religion) enhances joint decision making and thus has an indirect effect on the adoption of contraception, the empowerment of women (as measured by the woman's occupation outside of farming), in itself is associated with contraceptive use.

Keywords: Fertility decline, sub-Saharan Africa, gender, women's status, marital relations, spousal communication, decision-making

Introduction

As it became increasingly clear to researchers that in sub-Saharan Africa decisions regarding childbearing and family planning rest not only with women, but with both partners to a marital union, the focus of attention turned to examining couples. Consequently, the past decade has witnessed an increasing attention of looking at fertility related attitudes and family planning behaviors in the context of a "gender- based power dynamics within the sexual relationships of men and women" (Blanc 2001, p.189).(For example, Ezeh 1993; Doodoo and Seal 1994; Bankole 1995; Lasee and Becker 1997; Bankole and Singh 1998; Wolff, Blanc and Ssekamatte-Ssebuliba 2000; Bawah 2002). Much of this literature indicates that it is the empowerment of women within the marital union that has a positive impact on the adoption of contraception and that the link of empowerment to contraception is through spousal communication.

This paper represents a step beyond these works in two ways: 1) by broadening the concept of spousal communication to include perceptions of wives and husbands about each other's intentions regarding childbearing, discussion of these intentions and decision-making about the number of children to have; and 2) by considering the effects of spousal communication and women's empowerment as separate factors on the adoption of contraception. The question is whether it is the empowerment of women that has a stronger impact on current use of contraception or spousal communication regarding the ultimate number of children.

The study reported here is based on data from a case study of two Pare villages in Ugweno Division of Kilimanjaro Region in Northern Tanzania. It aims to address a number of specific questions related to the husband-wife relationship concerning decisions about child bearing and current use of contraception. It follows from our previous work that examined the relationship of women's empowerment and fertility decline (Larsen and Hollos 2003), women's marital relations and the acceptance of contraception (Hollos and Larsen 2003a) and the relationship between men's fertility desires, their characteristics and their marriage type (Hollos and Larsen 2003b). In the current paper we combine the male and the female perspectives and examine whether our previous findings concerning the determinants of contraceptive use hold when considering the couple as a unit of analysis.

In Tanzania, the total fertility rate declined gradually from 6.3 to 5.8 to 5.6 from the 1991/92 Tanzania Demographic and Health Survey (TDHS) to the 1996 TDHS to the 1999 Tanzania Reproductive and Child Health Survey (TRCHS 2000, p.34). This fertility decline was associated with a significant increase in contraceptive use, and the percentage of ever use of a modern method rose from 14 to 23 to 30 in 1991/92, 1996 and 1999 (TRCHS 2000, p.45). However, there are substantial regional variations in the pace of fertility decline and adoption of contraception and the demographic transition is furthest along in Kilimanjaro Region (TDHS 1997; Larsen and Hollos 2003).

Literature review: The link between communication, empowerment and contraception

In the past decade a growing body of literature focused on the dynamics of couple relationship in its linkage to the adaptation of contraception. Much of this research found that in most of the developing countries and particularly in sub-Saharan Africa males dominate fertility related decisions (Isiugo-Abanihe 1994) and that both women and men subscribe to the prevailing gender ideology of male authority in matters of family size and composition (Renne 1993). Thus, fertility intentions were found to "operate essentially on an individual and not a family level" (Mott and Mott 1985, p.98). Verbal communication about these intentions was found to be low for a variety of reasons (Blanc et al. 1996) including respect for tradition, the wife's fear of suspected infidelity by the husband, her desire to prevent the husband from marrying another wife or engaging in extramarital relations which may result in children (Fapohunda and Rutenberg 1999) and a difficulty for couples to talk about sex (Havanon 1996). Consequently, the couples' awareness of each others' attitudes toward family planning and their desired number of children was found to be low (Becker 1996; Bankole and Singh 1998; Becker and Costenbader 2001) in most developing countries, including sub-Saharan Africa where agreement between husbands and wives regarding ideal number of children was lowest (Becker 1996). Given that the wife's and the husband's reproductive goals often differ, a number of studies investigated the effect of power differences between the couple on the decision to adopt contraception. Ezeh (1993), for example, found that in Ghana the wife's attitude to contraception is influenced by the husband's attitude and characteristics but this is not true vice versa. Similarly, Doodoo (1998) found that in Kenya contraception was much more likely to be used when

husbands wanted to stop childbearing. A study by Wolff, Blanc and Ssekamatte-Ssebuliba in Uganda showed that "partner opposition was found to result in statistically significantly lower levels of use of all methods combined and of modern methods for women. By contrast, partner opposition showed no effect on men's contraceptive behavior" (2000, p.135).

In contrast to these findings, a number of recent works found that in some cases there is an increased level of communication between spouses and that the adoption of contraception is furthered by this. In most cases, spousal communication was associated with the empowerment of women within the marital union.

The relationship of increased communication and discussion of childbearing intentions between spouses and lower fertility intentions is documented, for example, for Nigeria where Kritz, Gurak and Fapohunda (1992) found that decision-making power and spousal communication had a strong effect on the demand for children. Similarly, in Renne and Bankole's (1996) study the ideal number of children was lower for those who discussed the number of children wanted with their spouses. The same results emerged from the research of Kimuna and Adamchak (2001) in Kenya, and Doodoo (1998) in Ghana. Feyisetan found that in Nigeria spousal communication is extremely important and "that marital partners who discuss and take joint decisions on what to do to delay or stop childbearing are more likely to use (or report use of) contraception than their counterparts" (2000, p.43).

The question then is, what are the characteristics of those couples where such communication is possible? The unequivocal answer from most studies is that spousal communication is strongly facilitated by the empowerment of women and that higher fertility appears to be related to gender inequality (for example, Doodoo and Seal 1994). A number of factors indicate the empowerment of women and the increase of their status within the household and the marital union. Meekers and Oladosu (1996), for example, found that in Nigeria women who are the husband's sole or senior wife and who watch television about reproductive issues are more likely to discuss childbearing intentions with their husbands. However, it is only when both spouses have at least secondary education that spousal communication is greatly enhanced. A study by Lasee and Becker (1997) claims that in Kenya a couple's number of living children and their educational levels were both significantly related to contraceptive use. In couples in which the wife was better educated than her spouse, she had more say in household decision making and these couples were 4.3 times more likely to use contraception. Renne (1993) also found that among the Yoruba education has encouraged closer conjugal relations and subsequently discussion about the number of children wanted in several ways. Education fosters spousal communication and a certain amount of intra-household equality, whereby both wives and husbands can speak their minds about the number of children wanted, even if they do not always agree. Education contributes to women's sense of authority so that they can raise these issues with their husbands. Similarly, Feyisetan's research showed that at higher levels of education and with little difference in educational attainment, "partners appear to feel more comfortable discussing issues which are traditionally thought to be under the control of men" (2000, p.39), and that these issues include family planning. Other factors that are associated with

joint decision-making and communication include urban residence, older age of women and Christian, as opposed to Muslim, religion. This latter finding reflects the differences in the perception of women between the two groups, with Christians according women greater recognition and power. Wolff, Blanc and Ssekamatte-Ssebuliba (2000) also found that in Uganda formal education shows a powerful effect of increasing women's sense of control over fertility outcomes and that "discussion" about childbearing in urban, educated couples is more likely to be a balanced exchange between partners. Findings on the covert use of contraceptives underline the strength of these findings since it was found to be associated with the lack of communication between spouses and with the level of the wife's education (Biddlecom and Fapohunda 1998). From these works it appears that the linkage between women's empowerment and contraception is through spousal communication. The question we wish to address is whether this is always the case or if the wife's empowerment in itself effects the adoption of contraception.

Aims and objectives

The current research follows from our previous work in two Pare communities in the Kilimanjaro Region of Northern Tanzania. In previous papers (Larsen and Hollos 2003; Hollos and Larsen 2003a, 2003b) we identified two types of marriages in this community, "companionate" and "lineage-based". These papers examined the perspectives of the wives and husbands separately. In the paper on women we found that in those that we called "companionate" unions - defined as those "in which the partners view their interests and responsibilities as convergent and shared" (Hollos and Larsen 1997, p.370) - the women were empowered, as measured by the following variables: free partner choice, occupation

outside farming and schooling, and they came from relatively affluent families as measured by the type of the house. We found that these characteristics of women were associated with fertility decline in the last ten years. In a subsequent paper we looked at the relationship of contraception and those aspects of a woman's position, which are related to her marriage. We found that women who have a "companionate" marriage are more likely to use modern reversible contraceptive methods. In these unions the partners made joint decisions about the number of children to have and the wife claimed that the "husband does not make most important decisions in the house". In addition, these women had a number of years of schooling and those with some secondary education were particularly likely to use contraception. The paper that examined men's fertility desires showed that those men who have fewer children are younger, educated at least to the primary and often to the secondary level, their wives have also completed at least primary school, they are more affluent and they are likely to be Christian as opposed to Muslim. They are in a marital relationship where the partners chose each other, they communicate with their wives about important issues and make joint decisions, including the number of children they should have.

Here, we combine the women's and the men's perspectives on the current use of contraception. Moreover, we broaden the definition of communication to include not only discussion but also perceptions about each other's views on the number of children to have and the process of decision-making. We also make a distinction between the normative ideal number of children and the desired number of children at the time of the interview and the difference between husbands and wives on each of these, in order to query the accepted impression that African men continue to desire larger families than their wives.

The specific questions we aim to address are those related to the husband-wife relationship concerning decisions about childbearing and current use of contraception, looking at the couple as a unit of analysis. These include: First, what are the perceptions of each spouse of the other's attitude towards the number of children to have; whether they have communicated about childbearing; whether they make these decisions together and whether these couple indicators are related to the individual characteristics of the spouses. Second, what are the relationships of couple indicators to current use of contraception when we take into account the ideal number of children and the desired number of children, as reported by the husband and the wife? Third, independent of these couple indicators, do the factors which we previously characterized as those related to the empowerment of women directly impact on the current use of contraception? Fourth, considering the couple indicators and the variables of women's empowerment simultaneously, which of these variables are important for the current use of contraception?

Ethnographic background

The Pare, traditionally patrilineal highland cultivators, are one of the major ethnic groups of Northern Tanzania, inhabiting the range of mountains bearing their name along Tanzania's northern border. Ugweno Division, where our work took place, is in the northernmost area of the district, with settlements located at altitudes between 4000 and 5000 feet. The approximately 20,000 inhabitants of the Division live in farm settlements that are dispersed in clusters, covering an area of approximately 300 square kilometers.

The research sites, Kisanjuni and Masumbeni are located in the center of Ugweno Division, with respective populations of 2500 and 4200, according to the 1988 census (Bureau of Statistics, Ministry of Finance, Economic Affairs and Planning 1988).

The Pare settlement pattern consists of clusters of homesteads of patrilineally related members of minimal lineages. A village in most of Pare country, including the research sites, usually consists of dispersed homesteads, a cluster of shops, an area for the weekly cyclical market, an elementary school, a Lutheran church and a mosque. In addition, Kisanjuni also contains a government building which houses the ward and village offices and Masumbeni has a secondary school. Daily bus service operates between Masumbeni, Kisanjuni and the town of Mwange in the lowlands. Both villages have health and well-child clinics; the one in Kisanjuni performs deliveries and sterilizations. Free contraceptives and family planning advice is available at both locations, the consequence of which is that contraceptive knowledge is universal.

The economic base of the Ugweno highlands is a cropping system which combines hoe cultivation and herding. The traditional staple crop is banana which is now inter planted with coffee. Cattle, sheep and goats are kept by most families and are important both as sources of protein and as stores of wealth. This is an intensive system, which requires heavy labor investment to be productive and returns to labor are low. Today, due to increasing land shortage, resulting from land fragmentation due to the inheritance pattern, which calls for equal shares of land for each son, only a minority of the population can survive solely by cultivation. The majority of men from the Ugweno area have been

forced to look for other occupations to supplement their income and leave the area, either permanently or semi-permanently, often leaving their wives and children on the farm to tend to maintain a homestead which they continue to consider home.

Marriage in the past was arranged by patrilineal elders and the desirable partners were other Pare, preferably from the Gweno segment. The payment of bridewealth to the bride's father or patrikin was a prerequisite of marriage. This custom is still unquestioned and considered an important part of the marriage contract. In the current generation, marriage is often the result of free choice. Increasingly, bridewealth payments are made in cash, instead of the customary cows and goats, which the young men who work in the cash economy find easier to obtain and is also preferred by the older men who have no ready access to cash. This has shifted the responsibility for the amassing of the payment to the younger men, away from the patrikin, and has given power and independence to them to arrange their own marriages. Another change in the marriage pattern is that as a consequence of the land shortage and wage employment, locally polygyny has diminished.

The division of labor between men and women has given the women considerable economic independence and autonomy. It is the wives who work the husband's land today and, to a large extent, support the family off its proceeds. The exception is coffee, a cash crop, which is sold through cooperatives by the men. Men similarly control the livestock assets in that women cannot sell the animal or its meat. In addition to farming and trading, many women also have other supplementary occupations as seamstresses, teachers or nurses on the mountain. In non-migrant, primarily farming families, the women help out in

farming activities that are usually organized by the men. The husband's contribution to the household in migrant families consists of whatever cash he is able to send home. These remittances now come almost exclusively to his wife and children and rarely to his parents. An important consequence of this is that many women no longer only work under the men but cooperate with them as partners. They manage the entire household budget, they invest and save and acquire managerial skills. They also gain a sense of control over resources and power vis a vis their husbands.

Data and methods

Data

The analysis was based on the 1998 Pare Survey (Larsen and Hollos 2003). Five hundred women age 20-60 were selected for interview from a simple random sample, and 498 women completed an interview. The husband's of the interviewed women were eligible for interview and 390 men completed an interview. Labor migration is prevalent in this community and migrant men who did not come home during the interviewing period from June 1998 to February 1999 could not be interviewed. The sample analyzed was restricted to 277 couples with no missing information about the covariates analyzed and with the wife in the reproductive age range from 20 to 49. This survey collected information about wife and husband relations, communication about family planning and childbearing, the value of children, domestic decision-making, a complete birth history of the woman, information about the number of children of the husband, contraceptive use and socioeconomic characteristics.

In this study the outcome variable was the current use of contraception, as reported by the wife. There was very high agreement in wife and husband reporting of current use of contraception, and we chose to use the wife's response as a representation of the couple. The independent variables included one group of variables measuring wife and husband relations and a second group measuring women's empowerment, and demographic and socio-economic characteristics. The wife and husband relationship was measured by five variables constructed on the basis of wife and husband responses, as follows: 1) the variable "Perception of spouse's attitude toward number of children to have" was based on the questions "Do you think your husband wants the same number of children, more or fewer children than you want?" and "Do you think your wife wants the same number of children, more or fewer children than you want?", where we made the three categories agree (wife and husband answer is in agreement), disagree (wife and husband answer is not in agreement) and don't know (both husband and wife answer "don't know"); 2) the variable "Discuss with spouse the number of children to have" was from the questions "Have you ever talked to your husband about the number of children you want to have?" and "Have you ever talked to your wife about the number of children you want to have?"; 3) the variable "Who decided number of children to have" was from the question "Who decides how many children to have?" and the answers "joint decision, wife decides, husband decides, is not resolved, other". We made a bivariate variable with the two categories "joint" and "all other", because there were substantial discrepancies between the wife and husband responses that were not in the "joint decision" category and there were almost no cases in the category of "wife decides"; 4) the variable "Ideal family size" was from the question "If you could go back to the time when you did not have any

children and could choose exactly the number of children to have in your whole life, how many would that be?" or, if childless, "How many children would you like to have in total?". Since the Tanzania family planning policy and program recommended four children per family, we distinguished between responses of "more than 4 children" and "4 or fewer children"; and 5) the variable "Desire for children" was based on the difference between wife and husband responses to the latter question listed above and the wife's response to the question asking "Just to make sure that I have this right: You have had TOTAL___ births during your life?". Thus, the variable "Ideal family size" should capture couples' norms about completed family size, while the variable "Desire for children" was a factual variable taking into account each couples' childbearing experience at survey date.

Women's empowerment was measured by the wife's response (yes or no) to the three questions: 1) "Do you have an occupation besides farming?", 2) "Do you earn cash?" and 3) "Do you agree with the statement: Most important decisions in the family should be made by the husband?", and the resulting variables are referred to as: "Occupation besides farming", "Woman earns cash" and "Most important decisions in the family should be made by the husband". Demographic and socioeconomic variables included indicators of age, duration of marriage, parity, type of union (monogamous or polygamous), husband's place of residence, education of wife and husband, religion, type of house and who chose the partner. All these variables were based on the wife's response, with the exception of husband's age and education. Finally, we chose to analyze the age difference between wife and husband, instead of the absolute age of the

wife and the husband. The latter variables are usually included in studies of contraceptive use and their effects estimates are well know, while we do not know much about the effects of wife and husband age differences. We hypothesized that women with much older husbands (10 years or more) were less likely to use contraception.

Methods

As a first step, we compared the sample of couples with the sample of currently married women age 20 - 49 to determine whether the subset of women whose husband had completed the interview was representative of married women in the reproductive age range. More specifically, for each of the variables measuring women's empowerment, and demographic and socioeconomic characteristics we examined whether each variable from the sample of couples was significantly different from the same variable from currently married women based on a Pearson chi-square test. Next, we did a bivariate analysis of the characteristics associated with wife and husband perception, communication and decision-making about the number of children to have using a Pearson chi-square test. As a final step, the factors associated with the current use of contraception were determined on the basis of a logistic regression analysis. The modeling strategy included three stages. First, the association between each of the five variables measuring wife and husband relations and contraceptive use were estimated in univariate models (Model 1a). Subsequently, a multivariate model including the five wife and husband relations variables was estimated using backward selection and keeping variables that contributed to the model fit at the .10 level of significance (Model 1b). Second, univariate (Model 2a) and multivariate models (Model 2b) of the association

between women's empowerment, and demographic and socioeconomic characteristics were estimated using the same modeling strategy. Third, a multivariate model (Model 3) including each of the variables in Model 1 and 2 was estimated using backward selection. To better understand whether the final model was affected by the modeling strategy each of the multivariate models were re-estimated using forward selection. Lastly, for Model 3, we examined whether the significant effects estimates of the variables measuring wife and husband relations were modified by the significant indicators of women's empowerment.

Results

Table 1 shows the frequency distributions for the variables measuring women's empowerment and demographic and socioeconomic characteristics among all currently married women and women whose husband was interviewed. Women whose husbands were interviewed were more likely to reside together with their husbands than were all married women ($p = .038$). Otherwise, the study sample was representative of all currently married women, as seen by the finding that none of the variables for the women whose husbands were interviewed was significantly different from the variables for all currently married women. The age distribution of the study couples is presented in Table 2. Both wife and husband were in the same standard 10-year age group in 26.4 per cent of couples (8.3, 9.4 and 8.7 per cent of couples for age groups 20-29, 30-39 and 40-49), while women were in an older age group in only 2.9 per cent of couples and in a younger age group in 70.8 per cent of couples. The average age of wives was 34.5 ± 1.0 (95 per cent CI) and the average age of husbands was 44.9 ± 1.4 (95 per cent CI).

Table 1 about here

Table 2 about here

With respect to perception of spouse's attitude towards number of children to have we found that in 44.4 per cent of couples wife and husband gave a response that was in agreement, 49.5 per cent was in disagreement and 6.1 per cent had responses of "don't know" from both partners (Table 3). Both wife and husband reported that they had communicated about the number of children to have in 40.1 per cent of couples, in 19.1 per cent of couples both reported no communication, only the wife reported communication in 24.9 per cent of couples and in the remaining 15.9 per cent only the husband reported communication. More than half of the couples answered that they made decisions about childbearing jointly (53.7 per cent), while 43.7 per cent disagreed about whether decisions were made jointly, by the wife, the husband or others. The bivariate analysis showed that wife and husband relations, as measured by perception, communication and decision-making, were generally significantly associated with the variables: current use of contraception, wife and husband's education, religion, who chose the wife's husband and desire for children; and generally not associated with the variables: husband's residence, type of union, age difference between wife and husband, duration of union, parity, type of house, occupation besides farming, woman's earns cash, most important decisions in the family should be made by the husband and ideal family size. Finally, there was a significant association between each of the three variables of perception, communication and decision-making.

Table 3 about here

Table 4 shows that the variables measuring wife and husband relations had the expected associations with current use of contraception in the bivariate (Model 1a) and multivariate (Model 1b) analysis. In the multivariate analysis (Model 1b) current contraceptive use was 2.68 times as likely in couples in which both partners reported that they made joint decisions concerning the number of children to have, as among couples that reported otherwise. Similarly, couples in which neither spouse wanted more children were 2.10 times more likely to use contraception compared to couples where one or both spouses wanted more children. The bivariate (Model 2a) and multivariate (Model 2b) analysis of current use of contraception and variables measuring women's empowerment and demographic and socioeconomic characteristics had also the expected associations. For instance, in the multivariate analysis (Model 2b) couples in which the wife was occupied outside farming were 2.45 more times likely to use contraception and couples in which the wife said "no" to the questions that "Most important decisions in the family should be made by the husband" had 1.81 times higher odds of using contraception. When the variables measuring wife and husband relations as well as women's empowerment and demographic and socioeconomic characteristics were analyzed simultaneously in a multivariate model (Model 3) of current contraceptive use the associations were substantively the same. It should be noted, however, that in Model 3 couples were about half as likely to use contraception, when they did not approve of contraception. (Non-approval could be that the wife, husband and/or family or elders were against contraception, fear of side-effects or contraception was against religious

beliefs). The same multivariate models were obtained using forward selection.[1] Finally, none of the interactions between the variables "Who decided number of children to have" or "Desire for children" and "Occupation besides farming" or "Most important decisions in the family should be made by the husband" added significantly to the model fit at the .10 level.

Table 4 about here

Discussion and conclusion

The aim of this research was to examine the effects of spousal communication and women's empowerment on the adoption of contraception. The question was whether it is the empowerment of women or communication between husbands and wives regarding the ultimate number of children that has a stronger impact on the current use of contraception. A secondary objective of this analysis was to query the accepted impression that African men continue to desire larger families than their wives and thus hamper the fertility transition.

The results show evidence that both spousal communication and the empowerment of women have an impact on the adoption of contraception. Regarding the effect of spousal communication, it seems clear that what matters is joint decision making between the spouses. Couples who make joint decisions are more than two times likely to contracept than those who do not make joint decisions. This type of joint decision making is only

[1] In alternative models we merged information from the two variables about wife and husband education into one variable of both wife and husband education. This wife-husband education variable was not

possible in couples who have a particular, egalitarian type of relationship, which in previous papers we called "companionate" marriages. In these marriages, as measured by our indirect variables, the husbands and wives both have relatively higher education. They are also more likely to be Christian and to engage in discussion with each other regarding a number of issues, including plans for the future of their children. The desire to use contraception is strongest in couples who have three to four children. It is particularly strong when the husband and the wife agree that they do not want any more children. In other words, neither the wife's or the husband's desire has more effect on the decision to adopt contraception. We found no evidence in this data that men hamper the fertility decline by opposing the adoption of contraception.

The empowerment of women is also clearly linked to the adoption of contraceptive use. Women who contracept are more likely to be in occupations outside of farming and to answer "no" to the question whether "most important decisions in a family should be made by men". Most frequently, occupations outside farming require a certain level of schooling, thus this variable is linked to education. The major difference between farming and non-farming occupations lies in the ability to earn and control cash incomes which confers a sense of independence on these women.

The findings of this paper confirm our previous analyzes which focused on either the women's or the men's perspectives on fertility related decisions. One of the major findings of this paper is that while the empowerment of women (as measured by their level of education and religion) enhances spousal communication and joint decision

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significant in either of the two multivariate models (Model 2b and 3).

making and thus has an indirect effect on the adoption of contraception, the empowerment of women (as measured by the woman's occupation outside of farming), in itself is associated with contraceptive use. How this manifests itself in other contexts or communities should be a subject for further study.

An additional contribution of the current research is the broadening of the concept of spousal communication to include decision making. While previous analyses focused solely on discussion and on the perception of each other's reproductive intentions by husbands and wives, our work includes this additional dimension. This suggests that there yet might be additional dimensions in the dynamics of couple relations and in its link to the adoption of contraception which might need to be explored.

In conclusion, our research suggests that viewing the couple as a unit of analysis in the promotion of the adoption of contraception in sub-Saharan Africa is essential. While much previous research indicated that sub-Saharan African marriages were based on separate decisions and separate budgets by the spouses and that fertility intentions were formed on the individual level, it is becoming evident that this state of affairs is passing. Some couples in this region seem to increasingly adopt a joint perspective in which communication and shared responsibilities are becoming paramount. Our data suggest that it is social forces such as education and the employment of women that change the nature of these marriages and which contravene against previously accepted norms which tended to favor men in childbearing decisions while giving women most of the burden of child raising. Educated and employed women today are increasingly assuming the

position of equal and joint partners within marriage, thus changing the nature of the decision making process regarding fertility and childbearing.

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Table 1. Percentage distributions of currently married women and of sub-sample whose husband was interviewed in the 1998 Pare Survey by selected background characteristics

Variable	Currently married women (N = 394)		Women whose husband was interviewed (N = 277)		p-value[1]
	%	N[2]	%	N[2]	
Husband's residence					.038
Lives in house	72.0	283	79.1	219	
Lives elsewhere	28.0	110	20.9	58	
Type of union					>.05
Monogamous	85.5	337	88.1	244	
Polygamous	14.5	57	11.9	33	
Age					>.05
20 - 29	34.3	135	32.5	90	
30 - 39	35.0	138	33.9	94	
40 - 49	30.7	121	33.6	93	
Duration of union (years)					>.05
< 5	20.3	80	17.7	49	
5 – 9	19.8	78	20.2	56	
10 – 14	13.2	52	12.6	35	
15+	47.7	184	49.5	137	
Parity					>.05
0 – 2	29.7	117	26.7	74	
3 – 4	25.4	100	25.3	70	
5 – 11	44.9	177	48.0	133	
Education					>.05
Standard 0 - 4	20.8	82	22.7	63	
Standard 5 - 8	72.1	284	69.7	193	
Form 1 and above	7.1	28	7.6	21	
Type of house					>.05
Brick or cement	40.6	161	37.6	104	
Clay or other	59.1	233	62.5	173	
Religion					>.05
Muslim	68.5	269	67.9	188	
Christian	31.6	124	32.1	89	
Occupation besides farming					>.05
No	85.1	330	87.1	237	
Yes	15.0	58	12.9	35	
Woman earns cash					>.05
No	75.1	295	78.3	217	
Yes	24.9	98	21.7	60	
Most important decisions in the family should be made by the husband					>.05
No	45.9	181	43.3	120	
Yes	54.1	213	56.7	157	
Who chose her husband					>.05
Herself and husband	94.9	374	95.7	265	
Parents, husband, self, other	5.1	20	4.3	12	

[1] Based on a chi-square test
[2] Some cases do not add up to the total because of missing values

Table 2. Percentage of couples, by age of spouse at interview

Husband's age	Wife's age			
	Total	20 - 29	30 - 39	40 - 49
Total	100.0	32.5	33.9	33.6
20 – 29	9.4	8.3	.7	.4
30 – 39	27.8	16.6	9.4	1.8
40 – 49	28.5	2.9	17.0	8.7
50 – 59	24.2	3.3	3.6	17.3
60^{+}	10.1	1.4	3.3	5.4

Table 3. Percentage distribution of couples, by selected characteristics, according to wife and husband perception, communication and decision making about the number of children to have (N = 277)

Variable	Perception				Communication					Decision-making		
	Agree	Disagree	Don't know	p-value[1]	No	Yes	Wife(yes) & husband(no)	Husband(yes) & wife(no)	p-value[1]	Joint	All other	p-value[1]
Current use of contraception				.017					.019			<.001
Yes	46.3	37.2	11.8		24.5	49.6	37.7	36.4		51.0	26.6	
No	53.7	62.8	88.2		75.5	50.5	62.3	63.6		49.0	73.4	
Husband's residence				>.05					>.05			.015
Lives in house	79.7	77.4	88.2		86.8	74.8	82.6	75.0		84.6	72.7	
Lives elsewhere	20.3	22.6	11.8		13.2	25.2	17.4	25.0		15.4	27.3	
Type of union				>.05					>.05			>.05
Monogamous	92.7	15.3	17.7		83.0	91.0	87.0	88.6		90.6	85.2	
Polygamous	7.3	84.7	82.4		17.0	9.0	13.0	11.4		9.4	14.8	
Age difference: Husband is:				>.05					.05			>.05
Younger	2.4	5.8	0.0		5.7	4.5	4.4	0.0		5.4	2.3	
0 – 9 years older	56.1	48.2	35.3		35.9	59.5	43.5	59.1		54.4	46.9	
10+ years older	41.5	46.0	64.7		58.5	36.0	52.2	40.9		40.3	50.8	
Duration of union (years)				>.05					>.05			>.05
< 5	18.7	17.2	17.7		21.2	14.4	14.7	27.9		15.7	20.5	
5 – 9	24.4	17.2	17.7		13.5	27.0	19.1	14.0		21.1	19.7	
10 – 14	14.6	11.9	5.9		9.6	12.6	16.2	11.6		14.3	11.0	
15+	42.3	53.7	58.8		55.8	46.0	50.0	46.5		49.0	48.8	
Parity				>.05					>.05			>.05
0 – 2	30.1	23.4	29.4		26.4	26.1	23.2	34.1		23.5	30.5	
3 – 4	28.5	23.4	17.7		18.9	27.9	29.0	20.5		24.8	25.8	
5 – 11	41.5	53.3	52.9		54.7	46.0	47.8	45.5		51.7	43.8	
Education				.01					.005			>.05
Standard 0 - 4	14.6	27.7	41.2		34.0	14.4	29.0	20.5		21.5	24.2	
Standard 5 - 8	74.0	67.2	58.8		64.2	73.0	62.3	79.6		68.5	71.1	
Form 1 and above	11.4	5.1	0.0		1.9	12.6	8.7	0.0		10.1	4.7	
Husband's education				.05					<.001			.024
Standard 0 - 4	19.5	34.3	41.2		45.3	16.2	37.7	22.7		22.2	35.2	
Standard 5 - 8	56.9	49.6	47.1		43.4	54.1	50.7	63.6		54.4	50.8	
Form 1 and above	23.6	16.1	11.8		11.3	29.7	11.6	13.6		23.5	14.1	
Type of house				>.05					>.05			>.05
Brick or cement	36.6	37.2	52.9		34.0	36.0	42.0	38.6		36.2	39.1	
Clay or other	63.4	62.8	47.1		66.0	64.0	58.0	61.4		63.8	60.9	
Religion				.0001					<.001			<.001
Muslim	55.3	75.9	94.1		90.6	57.7	63.8	72.7		57.1	80.5	
Christian	44.7	24.1	5.9		9.4	42.3	36.2	27.3		43.0	19.5	
Occupation besides farming				>.05					>.05			>.05
No	86.1	86.5	100		96.1	81.8	88.2	88.4		83.7	91.2	
Yes	13.9	13.5	0.0		3.9	18.2	11.8	11.6		16.3	8.8	
Woman earns cash				>.05					.01			>.05
No	78.9	77.4	82.4		84.9	69.4	79.7	90.9		74.5	82.8	
Yes	21.1	22.6	17.7		15.1	30.6	20.3	9.1		25.5	17.2	
Most important decisions in the family should be made by the husband				>.05					<.001			>.05
No	48.0	40.4	29.4		20.8	45.1	54.4	47.7		46.3	39.4	
Yes	52.0	59.6	70.6		79.3	55.0	45.6	52.3		53.7	60.6	

Table 3. Continued

Variable	Perception				Communication					Decision-making		
	Agree	Disagree	Don't know	p-value[1]	No	Yes	Wife(yes) & husband(no)	Husband(yes) & wife(no)	p-value[1]	Joint	All other	p-value[1]
Who chose her husband				.016					.003			.008
Herself and husband	97.6	95.6	82.4		86.8	98.2	95.7	100.0		98.7	92.2	
Parents, husband, self, other	2.4	4.4	17.7		13.2	1.8	4.4	0.0		1.3	7.8	
Perception of spouse's attitude towards number of children									<.001			<.001
Agree					7.6	74.8	39.1	20.5		67.8	17.2	
Disagree					64.2	25.2	59.4	77.3		32.2	69.5	
Don't know					28.3	0.0	1.5	2.3		0.0	13.3	
Discuss with spouse the number of children to have				<.0001								<.001
No	3.3	24.8	88.2							8.7	31.3	
Yes	67.5	20.4	0.0							57.1	20.3	
Wife (yes), husband (no)	22.0	29.9	5.9							2 0.8	29.7	
Wife (no), husband (yes)	7.3	24.8	5.9							13.4	18.8	
Who decided number of children to have				<.0001					<.001			
Joint	82.1	35.0	0.0		24.5	76.6	44.9	45.5				
All other	17.9	65.0	100.0		75.5	23.4	55.1	54.6				
Ideal family size				<.0001					>.05			>.05
Both said more than 4	22.0	24.1	64.7		32.1	21.6	21.7	34.1		22.8	28.9	
Both said 4 or less	55.3	38.7	5.9		35.9	51.4	44.9	34.1		51.0	35.9	
Only husband said 4 or less	13.0	24.8	11.8		20.8	14.4	18.8	27.3		15.4	22.7	
Only wife said 4 or less	9.8	12.4	17.7		11.3	12.6	14.5	4.6		10.7	12.5	
Desire for children				<.0001					.007			<.001
Both want more	43.9	29.2	47.1		35.9	37.8	34.8	38.6		34.9	39.1	
Neither wants more	39.8	51.1	17.7		39.6	46.9	43.5	43.2		50.3	36.7	
Husband wants more	5.7	8.8	11.8		13.2	4.5	5.8	11.4		4.0	11.7	
Wife wants more	10.6	10.2	5.9		3.8	10.8	15.9	6.8		10.7	9.4	
Undecided	0.0	.7	17.7		7.6	0.0	0.0	0.0		0.0	3.1	
Total	44.4	49.5	6.1		19.1	40.1	24.9	15.9		53.7	46.2	
Sample size	123	137	17		53	111	69	44		149	128	

1 Based on the wald test.

Table 4. Odds ratios and 95% confidence intervals showing the effects of wife-husband relations, women's empowerment and demographic and socioeconomic characteristics on the current use of contraception

Variables	Model 1a . Univariate		Model 1b . Multivariate		Model 2a . Univariate		Model 2b . Multivariate		Model 3 . Multivariate	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Perception of spouse's attitude toward number of children to have			NS						NS	
Agree	1.46	.89-2.39								
Disagree	1.00									
Don't know	.23	.05-1.02								
Discuss with spouse the number of children to have			NS						NS	
No	1.00									
Yes	3.02	1.46-6.26								
Wife (yes) and husband (no)	1.86	.84-4.11								
Wife (no) and husband (yes)	1.76	.73-4.23								
Who decided number of children to have										
Joint	2.88	1.73-4.78	2.68	1.60-4.49					2.47	1.43-4.26
All other	1.00									
Approval of contraception[1]			NS							
Yes	1.00									
No	.71	.51- .98							.54	.26-1.11
Ideal family size			NS						NS	
Both said more than 4	1.00									
Both said 4 or less	1.60	.86-2.97								
Only husband said 4 or less	1.63	.78-3.44								
Only wife said 4 or less	1.97	.83-4.63								
Desire for children[2]										
Both want more	1.00									
Neither wants more	2.18	1.23-3.86	2.10	1.27-3.49					3.01	1.68-5.40
Husband wants more	1.05	.38-2.90								
Wife wants more	1.36	.57-3.29								
Undecided	.25	.05-1.15								

Table 4. Continued

Variables	Model 1a . Univariate		Model 1b . Multivariate		Model 2a . Univariate		Model 2b . Multivariate		Model 3 . Multivariate	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Husband's residence							NS		NS	
Lives in house					1.78	.95-3.33				
Lives elsewhere					1.00					
Type of union							NS		NS	
Monogamous					1.00					
Polygamous					.88	.42-1.84				
Age difference:							NS		NS	
Husband is:										
Younger					1.80	.52-6.18				
0 – 9 years older					1.00					
10+ years older					.92	.56-1.51				
Education							NS		NS	
Standard 0 - 4					1.00					
Standard 5 - 8					1.11	.61-1.99				
Form 1 and above					2.32	.85-6.34				
Husband's education							NS		NS	
Standard 0 - 4					1.00					
Standard 5 - 8					1.14	.65-2.02				
Form 1 and above					1.59	.78-3.25				
Duration of union (years)							NS		NS	
< 5					.31	.14- .67				
5 – 9					.91	.49-1.70				
10 – 14					.81	.38-1.72				
15^{+}					1.00					
Parity										
0 – 2					.43	.23- .81	.35	.19- .67		
3 – 4					1.33	.75-2.38			2.63	1.36-5.06
5 – 11					1.00					
Religion									NS	
Muslim					.52	.31- .86	.59	.34-1.03		
Christian					1.00					
Occupation besides farming										
No					1.00					
Yes					2.59	1.25-5.35	2.45	1.12-5.36	2.39	1.05-5.46
Woman earns cash							NS		NS	
No					1.00					
Yes					1.87	1.05-3.33				
Type of house							NS		NS	
Brick or cement					1.27	.77-2.08				
Clay or other					1.00					
Most important decisions in the family should be made by the husband										
No					2.01	1.23-3.28	1.81	1.08-3.04	1.66	.97-2.85
Yes					1.00					
Who chose the husband							NS		NS	
Wife and husband					3.44	.74-16.01				
Parents, husband, wife and other					1.00					

NS Variable did not stay in the model at the .10 level of significance