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The Relationship of Social Affiliation And Interpersonal Discussion to Family Planning Knowledge, Attitudes and Practice

By Marc Boulay and Thomas W. Valente

Context: *Past research has demonstrated an association between membership in a social club and the adoption of family planning, yet little is known about the how these groups promote the diffusion of such behavior.*

Methods: *Data on 2,217 women aged 15–49 and 2,152 men aged 15–54 from the 1994 Kenya Situation Survey are used to examine the role of communication within individuals' social networks in mediating the association between club membership and awareness, approval and use of family planning.*

Results: *In analyses accounting for demographic factors, women club members were 2.3 times as likely as nonmembers to know about modern methods of family planning, and male club members were 1.5 times as likely as nonmembers to know about modern contraceptives and 1.7 times as likely as nonmembers to approve of family planning. Club membership was not directly associated with increased use of contraceptives, but among both men and women, participation in a club was associated with significantly greater odds of having family planning discussions with members of both core and extended social networks. Women who had discussed family planning with both core and extended network members were 8.3 times as likely to be currently using modern contraceptives, and men who had done so were 3.2 times as likely as were those who had limited such discussions to their core network only.*

Conclusions: *By promoting informal discussions about family planning within a group with a diverse membership, social clubs play a mediating role in the diffusion of new information and innovative behaviors.*

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The diffusion of ideas and practices has played an important role in fostering the transition to lower fertility in Europe and, more recently, in developing countries.[1] As information about contraceptive methods becomes more widespread, couples begin to realize that they can control their fertility and make conscious choices about the size of their families. Accordingly, the desire for children may change as exposure to new ideas alters individuals' aspirations for themselves and their families.

Social interaction may be one mechanism for the exchange of contraceptive information. Studies in Kenya and elsewhere have demonstrated that women frequently talk to one another about fertility and contraceptive use during the course of their daily routine.[2] Through these informal discussions, women may learn about others' experiences with particular contraceptives, they may evaluate the appropriateness of different methods for their own situation and they may assess whether social norms favor the use of family planning.[3]

The content of the information obtained from these discussions may vary, depending on the diversity of individuals within a social network. Core networks—those made up of individuals a person knows well and has strong ties to and frequent contact with—tend to be homogeneous and tend to exert pressure on the individual to conform to the social norms that prevail within the group.[4] Members of a core network tend to possess the same knowledge as the focal individual; in general, the likelihood that new information will pass through these ties is low.

In contrast, contact with individuals from outside one's immediate social group—one's extended network—may bring exposure to more diverse viewpoints, and therefore may be more likely to convey new information.[5] Women and men who restrict their discussion of family planning to the individuals within their core network may be less likely to receive new information and ideas related to fertility and family planning than those who have contact with an extended network; they may also be less receptive to the information and ideas to which they are exposed.

Participation in a social club or community group has been associated with the adoption of a number of behaviors, including immunization,[6] the use of oral rehydration solution and the adoption of improved agricultural practices.[7] The association of club membership with the practice of family planning has also been recognized: Increased levels of contraceptive prevalence have been observed among social club members in Korea,[8] Bangladesh[9] and Kenya.[10] In addition, the type of club women belong to can influence their contraceptive practices. In Kenya, the presence of a women's group has been associated with a higher likelihood of contraceptive use, while the presence of a religious group has been associated with a lower likelihood of use.[11]

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Several mechanisms may account for the association between club membership and family planning practice. The positive relationship may simply be a selectivity effect: People who join clubs may also be predisposed to practice innovative behaviors. In addition, clubs may function as formal dissemination points through which individuals are persuaded to adopt new behaviors. Lastly, club membership may help diffuse ideas by facilitating discussion with members of extended networks.[12]

Community Groups in Kenya

Informal women's groups have long been a hallmark of social organization in Kenya. Traditionally, these groups have served as collective self-help organizations, providing economic and labor assistance to women during childbirth and family crises. The founding of the national women's organization *Maendeleo Ya Wanawake* (Progress of Women) in the 1950s led to an increase in the number of groups and to the development of more formal organizational structures. The number of groups increased further during the 1980s, as the national government promoted women's groups as a development strategy. By the early 1990s, there were an estimated 24,000–30,000 women's groups in Kenya.[13]

Many older groups affiliated with *Maendeleo* remain intact today, while groups formed more recently often have a local orientation. Nonetheless, the organization and activities of both groups tend to be similar: Most have a formal leadership structure (commonly comprising a chairwoman, a secretary and a treasurer). In addition, both *Maendeleo* affiliates and local groups tend to emphasize income-generation projects, although local women's groups, to a greater degree than *Maendeleo* affiliates, have retained the traditional role of providing economic support to members in need.[14] Groups may also include educational activities such as discussions about child hygiene, family planning or sewing.

Women may also organize under the rubric of a religious organization. While these groups are similar in many ways to other women's groups, their activities tend to emphasize ritual rather than economic activities, and tend to be in support of the religious organization rather than of the group's members.[15] Furthermore, whereas religious groups often are identified with a particular clan or lineage, women's groups may draw their membership from multiple sources.[16]

While women tend to predominate in these social groups, a number of women's groups are actually initiated and led by men.[17] Nonetheless, little is known about men's participation in community groups. Men less commonly participate in groups than do women, and the groups in which men do participate (such as sports clubs) appear to differ from those that women join. Women often join groups that offer their members an opportunity to become involved in the economy and to acquire some degree of economic security independent of their husband.[18] Men, who may have less need to seek support from outside the household, seem to prefer groups focused on recreational activities.

Family planning programs have sought to use community groups to promote contraceptive use; in some cases, these efforts have involved lectures from health care workers about family planning. Although much of this effort has centered on women's groups, in one current project in Kenya, nationally known athletes offer soccer clinics to male sports club members, during which they discuss such topics as family planning and sexually transmitted diseases.[19]

In this article, we use data from the 1994 Kenya Situation Survey[20] to examine the association between club membership, interpersonal communication about family planning, and contraceptive knowledge, attitudes and practice. We hypothesize that the association between club membership and family planning knowledge, attitudes and practice is mediated by the level of discussion about family planning, particularly with individuals outside a person's immediate social network.

Methodology

The sampling design of the 1994 Kenya Situation Survey was intended to mirror that of the 1993 Kenya Demographic and Health Survey (DHS). The sample was drawn from the National Sample Survey Evaluation Programme master sample frame, and followed a household-based two-stage cluster design.[21]

The master sample comprised 1,048 rural clusters and 329 urban clusters covering 96% of the total population. The Situation Survey included 22% of these clusters—192 in rural areas and 77 in urban areas.* Approximately one-fourth of the clusters in each district were sampled. Urban clusters were oversampled to allow sufficient sample sizes for a follow-up comparison subsequent to a planned intervention. The survey sample consisted of 2,217 women aged 15–49 and 2,152 men aged 15–54.

Survey questionnaires were pretested three times and translated into Swahili, Kikuyu, Luo, Luhya, Kamba, Kisii, Meru, Kalenjin and Masai. Data collection took place during a one-month period in August and September 1994. Interviewers and field support staff were selected on the basis of their experience with the Kenya DHS.

Survey participants' group membership was ascertained using a two-part question. All respondents were asked: "Do you belong to any clubs or social organizations, such as community groups, religious groups, music groups, etc.?" A respondent indicating membership in a club was asked to list the groups to which he or she belonged; the first three clubs mentioned were recorded. Responses were categorized prior to data entry.

The ability to identify patterns of interpersonal communication with specificity is partly determined by a study's sample selection process. The greatest degree of specificity—the elaboration of a complete social network—is possible when bounded social units (for example, villages or community groups) rather than individuals are sampled and all individuals within the social unit are interviewed.[22] When a social unit's boundaries are not easily observable, nonprobability samples (such as snowball samples or random walks) may be used to estimate the complete network.[23] However, with a probability sample of individuals (as is used here), analyses are limited to each respondent's interpersonal communication with a supposedly independent group of other individuals. While this approach cannot identify the web of interaction between respondents, it allows for a greater degree of generalizability to the population.

In the Situation Survey, respondents were asked whether they had talked about family planning with their spouse or partner, their parents, other relatives, their son, their daughter, friends, coworkers, health care workers, religious leaders, community leaders and school teachers. Core network members were then identified as those people with whom a person would be expected to have frequent contact—namely, their spouse or partner, parents, other relatives or friends. Extended network members were those people with

*These clusters excluded the Tana River and Lamu districts in Coast Province; Isiolo and Marsabit districts in Eastern Province; Garissa, Mandera and Wajir districts in North Eastern Province; and Elgeyo-Marakwet, Samburu, Turkana and West Pokot districts in Rift Valley. The excluded districts include about 4% of the population and are inhabited mainly by a nomadic or pastoralist population, which has been hard for most surveys to reach.

Table 1. Percentage distribution of female respondents aged 15–49 and male respondents aged 15–54, by selected characteristics, Kenya National Information, Education and Communication Situation Survey, 1994

Characteristic	Women (N=2,217)	Men (N=2,152)
Age		
15–19	25.1	24.9
20–24	21.2	18.9
25–29	17.6	16.6
30–34	11.9	12.3
35–39	9.5	9.7
≥40	14.7	17.6
Education		
None	17.5	6.6
Primary	56.7	54.4
>secondary	25.8	39.0
Marital status		
Married/living with partner	62.3	52.4
Single	31.6	44.7
Divorced/widowed	6.1	2.9
Residence		
Urban	16.8	22.8
Rural	83.2	77.2
Province		
Nairobi	7.9	7.9
Central	16.2	16.2
Coastal	9.2	9.2
Eastern	18.2	18.2
Nyanza	18.2	18.2
Rift Valley	17.2	17.2
Western	13.1	13.1
Number of children		
0	30.8	47.1
1	12.3	9.4
2	12.1	9.5
3	11.3	8.6
4	9.1	7.5
5	24.4	17.9
Total	100.0	100.0

whom a person was expected to have less frequent interactions—coworkers, health care workers, religious leaders, community leaders and school teachers. This categorization of discussion partners into core and extended networks was based on expected frequency of interaction, rather than on a measure of actual frequency of contact. However, we consider it reasonable to assume that women and men will have, on average, more frequent interaction with family members and friends than with religious leaders and health workers.

Family planning knowledge, attitudes and practices were the primary dependent variables in this analysis. Since awareness of at least one contraceptive method is nearly universal in Kenya,[24] we categorized women and men according to whether they knew more than five modern contraceptive methods (the median number). Respondents' attitudes were assessed by a question on whether they approved of family planning. Use of a modern family planning method was measured for both ever-use and current use.

In Kenya, use of a contraceptive method has been associated with several individual-level characteristics, including age, education, parity, socioeconomic status and exposure to the radio. Area of residence also appears to influence contraceptive use, with distinct variations in the level of use between regions and districts and between urban and rural areas.[25]

Any association between club membership and contraceptive use may be confounded by these relationships, since some of these variables also may be associated with membership in a particular type of community group. Therefore, we controlled for these variables in the analyses to account for their possible confounding effects. Although heterogeneity within provinces suggests that comparisons should be made at the district rather than the provincial level,[26] sample size constraints precluded any meaningful district-level comparisons in this study.

We tested bivariate comparisons of sample proportions for statistical significance using chi-square tests of heterogeneity. Odds ratios were calculated using logistic regression models. To account for the cluster-based survey design in these analyses, we weighted the data using the inverse of each respondent's probability of inclusion in the sample.

Results

Background Characteristics

The women included in the sample were similar to those participating in the 1993 Kenya DHS. Nearly two-thirds were younger than 30, more than 80% had attained at least a primary education, 62% were married or living with a partner, and 83% lived in rural communities (Table 1). The male sample, however, differed considerably from that of the DHS, largely because men aged 15–19 were included in the Situation Survey. Thus, the proportion of unmarried males and males with no children was greater in the 1994 sample than in the DHS. When we excluded the 15–19-year-olds, differences in marital status and parity between the two samples disappeared. Among men in the Situation Survey, 52% were married or living with a partner, 93% had at least a primary education and more than three-quarters lived in rural areas.

Club Membership

Women were more likely than men to belong to a club or group: Forty-seven percent of women were club members, compared with 41% of men (p<.001, not shown). More than 60% of women who belonged to a club participated in either a religious group or a women's group. Among male club members, more than half belonged to either a religious group or a sports club. Small proportions of club members belonged to youth groups, self-help groups or other community groups. About 20% of women and men who belonged to any club were members of more than one group.

Among women, club members were significantly older than nonmembers (Table 2). They were also more likely to be married and to live in rural areas, were of higher socioeconomic status, had larger families, and were more likely to have heard a radio program promoting family planning use. Group members also were more likely than nonmembers to live in Eastern Province and less likely to live in Coastal Province, and they were also more likely to live in Western Province and less likely to live in Nairobi.

Male club members were not significantly older than nonmembers, but they were more educated and were of higher socioeconomic status than nonmembers. Male club members were more likely than nonmembers to live in rural areas and also were more likely to have been exposed to family planning messages on the radio.

Participants in women's groups were older than women taking part in religious groups and were also more likely to be married. Women in religious groups had smaller families than participants in women's groups; in fact, they were nearly 10 times as likely to have no children. Among men, those participating in religious groups were older, more likely to be married and more likely to have a large family than were men in sports clubs.

Membership and Family Planning

Among women, 62% of club members knew of at least five modern contraceptive methods, compared with 44% of nonmembers; 80% of club members approved of family planning, compared with 75% of nonmembers (Table 3, page 116). Moreover, club members were more likely to have ever used and to be currently using modern contraceptives (45% and 26%, respectively) than were nonmembers (34% and 20%). Male club members also were more likely than nonmembers to know of and approve of modern family planning methods, but they were only marginally more likely to report having used or currently using a method.

The association between contraceptive knowledge and club membership was me-

diated by members' characteristics, albeit in opposite directions for women and men (Table 4, page 116). After controlling for demographic variables, we found that the association between club membership and knowledge of modern methods strengthened among women (from an odds ratio of 2.00 to one of 2.30). Among men, controlling for individual characteristics lessened the strength of this association (from an odds ratio of 1.84 to one of 1.47).

In the multivariate analysis, approval of family planning among women members was not significant, while among men this relationship was weakened but remained significant. In addition, club membership was no longer associated with either ever-use or current use of family planning once the effects of background characteristics were taken into account.

In separate analyses examining the association between family planning knowledge, attitudes and practices and membership in religious groups, women's groups and sports clubs, relationships between membership and family planning generally were consistent with the above results (not shown). However, while members of women's groups were more likely than nonmembers to know more than five modern contraceptive methods, there was no difference in knowledge between women members of religious clubs and nonmembers. In addition, men in religious clubs were significantly less likely than nonmembers to have ever used a modern method, while men in sports clubs did not differ from nonmembers in terms of knowledge, approval or use.

Table 2. Percentage distribution of female and male respondents, by selected characteristics, according to group membership

Characteristic	Women				Men			
	Member (N=901)	Non-member (N=1,315)	Women's groups (N=273)	Religious groups (N=334)	Member (N=856)	Non-member (N=1,302)	Sports clubs (N=176)	Religious groups (N=264)
Age								
15–19	23.0**	26.9	0.0***	22.9	23.1	26.0	28.6***	21.4
20–24	17.9	24.1	18.5	17.0	21.4	17.2	30.0	23.0
25–29	17.3	17.9	21.0	18.0	15.3	17.5	24.1	13.2
30–34	13.5	10.4	21.0	11.9	12.2	12.4	8.1	11.7
35–39	11.3	8.0	15.2	12.5	12.0	8.1	6.5	15.1
≥40	17.0	12.8	24.4	17.7	16.0	18.8	2.8	15.6
Education								
None	15.1	19.6	16.6	14.6	4.0***	8.6	2.0	5.0
Primary	57.4	56.1	56.9	58.3	47.2	59.4	41.0	41.6
>secondary	27.5	24.3	26.5	27.2	48.8	32.1	57.0	53.4
Marital status								
Married/living with partner	66.6**	58.6	82.8***	67.9	52.9	52.0	37.6*	50.5
Single	28.2	34.5	6.2	28.2	44.7	44.7	59.1	47.1
Divorced/ widowed	5.2	6.8	11.0	3.9	2.4	3.3	3.3	2.3
Residence								
Urban	10.4***	22.4	7.6**	13.5	19.5**	25.2	32.7*	22.0
Rural	89.6	77.6	92.4	86.5	80.5	74.8	67.3	78.0
Province								
Nairobi	6.0***	9.5	3.7***	9.5	10.5***	13.2	20.3***	13.2
Central	17.4	15.1	19.4	17.9	17.0	14.5	22.9	17.1
Coastal	4.6	13.3	7.2	2.0	5.6	12.0	10.5	3.2
Eastern	26.2	11.2	23.9	22.8	19.6	14.2	22.4	15.8
Nyanza	17.2	19.1	11.3	19.6	19.7	14.2	5.7	15.6
Rift Valley	12.6	21.2	12.0	15.1	15.3	12.0	12.1	17.6
Western	16.0	10.6	22.4	13.2	12.3	10.1	6.1	17.6
Socioeconomic status								
Low	35.2***	44.7	34.3**	39.0	27.9***	39.8	33.3*	30.3
Middle	33.1	29.0	40.3	29.7	33.0	31.0	25.3	32.0
High	31.7	26.3	25.4	31.2	39.1	29.2	41.4	37.7
Number of children								
0	28.5***	32.8	3.6***	31.7	46.6	47.3	59.1**	48.9
1	6.9	17.0	6.2	6.6	10.6	8.6	13.6	10.1
2	12.8	11.5	15.7	13.9	9.8	9.3	12.5	10.3
3	10.9	11.6	15.8	9.6	7.9	9.1	6.2	8.1
4	10.8	7.7	12.8	9.7	7.6	7.4	2.7	5.5
5	30.2	19.4	46.0	28.6	17.5	18.2	6.0	17.0
Exposed to family planning messages on radio								
Yes	76.3***	68.2	79.5	74.4	83.7***	74.5	82.3	89.4
No	23.7	31.8	20.5	25.6	16.3	25.5	17.7	10.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Difference between distributions is significant at p<.05. **Difference between distributions is significant at p<.01. ***Difference between distributions is significant at p<.001. *Note:* For both women and men, group members are compared with nonmembers. For women, women's groups are compared with religious groups; for men, sports clubs are compared with religious groups.

Family Planning Discussions

It was fairly common for both women and men to have discussed family planning (Table 5, page 117). Such discussion were more common with members of core networks than with members of extended network. However, a majority of women and men had also talked about family planning with a member of their extended network. Of those people who had discussed family planning with someone in their extended network, few (11%) had done so without also having discussed family planning with a core network member (not shown).

Some 52% of women and 62% of men reported having discussed family planning with their spouse or partner during the year preceding the survey. It is possible that this difference between men and women reflects an unwillingness on the part of some women to report these discussions, or it may indicate that husbands and wives differ in their perceptions of what constitutes a family planning discussion.

Nearly half of all women and men also had discussed family planning with a friend, but only 14% of men and women mentioned their parents as someone with whom they had discussed family planning.

Men were more likely than women to report having discussed family planning with coworkers, community leaders and school teachers, possibly reflecting the higher likelihood that community leaders and school teachers in Kenya are male. Women were more likely than men to have discussed family planning with a health worker, a finding that is consistent with the government's focus on persuading women to adopt family planning.

Group Membership and Discussions

Among both women and men, club members were more likely than nonmembers to have talked about family planning with someone during the year preceding the survey (Table 3). However, club members were less likely to have limited their discussions to individuals in their core network and more likely to have discussed

Table 3. Percentage of women and men who know about family planning, who approve of it and use it, and percentage who had discussed family planning, by group membership

Measure	Women			Men		
	All	Member	Nonmember	All	Member	Nonmember
Know 5 modern methods	52.4*	61.5	44.4	51.4*	60.3	45.2
Approve of family planning	77.4*	80.1	75.1	83.1*	88.8	79.1
Ever used a modern method	38.9*	44.9	33.6	44.2	47.3	42.0
Currently use a modern method	22.4*	25.6	19.7	23.1	25.6	21.3
Talked about family planning:						
with anyone	70.6*	77.3	64.7	76.6*	82.2	72.7
with core network only	16.6*	13.8	18.9	19.5*	17.8	20.7
with core and extended networks	47.5*	57.6	38.7	50.6*	58.3	45.2

*Difference across the row is statistically significant at p<.01 (chi-square test).

family planning with both core and extended network members: In analyses controlling for other variables, women who were club members were 76% as likely as nonmembers to have discussed family planning only with members of their core network, while they were 60% more likely to have done so with those in their extended network (Table 4). Men who were club members were no more likely than nonmembers to have discussed family planning only within their core network, although men who belonged to a club were 34% more likely to have done so within their extended network.

Compared with nonmembers, members of women's groups were less likely to have restricted their discussion of family planning to their core network and more likely to have discussed family planning with members of both their core and extended networks (not shown). In contrast, women in religious groups were no more likely than nonmembers to have discussed family planning with anyone in either their core or extended networks.

Male members of religious groups were also no more likely than nonmembers to have had family planning discussions, but among those who did, they were more likely to have discussed the subject with a member of their extended network (notably, their religious leader) than with a member of their core network. Since these men were also less likely to have ever used a modern contraceptive method, such extended network contacts may have functioned to dissuade men from using family planning. Membership in a sports club was not associated with any type of family planning discussion.

Discussion and Family Planning

Both women and men who had discussed family planning were more likely to know of modern contraceptive methods and to approve of and use these methods (Table 6). For example, among women who had not discussed family planning, 29% were aware of at least five modern methods, compared with 52–68% of those who had discussed family planning. Differences in contraceptive use were even greater: Twelve percent of women who had never discussed family planning had ever used a modern contraceptive, compared with 40–57% of those who had had such discussions.

Even when the effects of demographic characteristics are controlled, having discussed family planning was associated with increased knowledge and use of family planning. Compared with women who had not had family planning discussions, those had discussed the subject within their core networks were twice as likely to be aware of five modern methods and to approve of family planning, were four times as likely to have ever used modern contraceptives and were about five times as likely to be currently using a modern method (Table 7).

Furthermore, the breadth of one's social network was associated with family planning. Women and men who had discussed family planning with both their core and their extended networks were even more likely to know of, approve of and use modern contraceptive methods. Compared with women who had discussed family planning with their core network only, women who had talked with their core and extended network were more likely to know of more than five modern contraceptive methods, to approve of family planning, to have ever used a modern contraceptive method and to be currently using one. Similar differences occurred among men: Those who had discussed family planning with both their core and their extended networks were more likely than those who had limited their discussions to their core network to know of more than five methods and to be currently using one of them.

Discussion

Participation in community groups has been associated with the use of family planning methods in a number of studies.[27] However, few have offered empirical evidence demonstrating why group members may be more likely to practice contraception. The results presented here offer preliminary support for the hypothesis that club membership indirectly influences contraceptive use by increasing participants' access to diverse individuals and information.

While a bivariate association between club membership and contraceptive use was evident, multivariate analysis suggested that this relationship largely reflected the higher likelihood of club membership among individuals predisposed to use contraceptives. However, club members are more likely than nonmembers to have discussed family planning within an extended social network. Interaction with this broader group of individuals was in turn associated with an increased likelihood of modern method use, even after other characteristics commonly associated with contraceptive use were taken into account. This suggests that club membership may have an indirect effect on method use by extending an individual's social interaction beyond his or her core network. These findings were consistent for both women and men.

Table 4. Odds ratios (and standard errors) from multivariate analyses showing likelihood of family planning knowledge, approval, use and discussions among members of clubs, by sex and whether model adjusts for effects of background characteristics

Measure	Women		Men	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Know 5 modern methods	2.00*** (0.22)	2.30*** (0.36)	1.84*** (0.21)	1.47*** (0.21)
Approve of family planning	1.33*** (0.17)	1.04 (0.18)	2.09 *** (0.32)	1.68*** (0.31)
Ever used a modern method	1.61*** (0.18)	1.30 (0.21)	1.24 (0.14)	0.94 (0.13)
Current use of a modern method	1.41*** (0.19)	1.12 (00.14)	1.27 (0.17)	0.94 (0.15)
Talked about family planning:				
with anyone	1.86*** (0.18)	1.36** (0.16)	1.73*** (0.19)	1.30* (0.16)
with core network only	0.69*** (0.08)	0.76* (0.10)	0.83*** (0.09)	0.89 (0.11)
with core and extended networks	2.06*** (0.18)	1.60*** (0.16)	1.67*** (0.15)	1.34** (0.13)

*Significantly different from nonmembers at p<.05. **Significantly different from nonmembers at p<.01. ***Significantly different from nonmembers at p<.001. *Notes:* Adjusted odds ratios control for education, urban/rural residence, province, marital status, age, parity, socioeconomic status and exposure to radio messages.

Table 5. Percentage of women and men who had a family planning discussion in the past year, by network and discussion partner

Network and partner	Women	Men
Anyone	**70.6**	**76.7*** **
Core network	**64.1**	**70.1*** **
Spouse	51.5	62.3***
Friends	45.3	47.5
Other relatives	34.1	33.4
Parents	14.4	13.9
Extended network	**53.6**	**57.0**
Health care worker	34.3	26.5***
Coworkers	33.1	39.7***
Religious leaders	24.3	24.2
Community leaders	17.7	21.8*
School teachers	17.1	23.7***

*p<.05. ***p<.001.

Discussion of family planning within an extended network was associated with greater knowledge of family planning methods. This suggests that extended networks may influence family planning decision-making by increasing the knowledge base upon which such decisions are made. Women who had discussed family planning with their extended network were also more likely to approve of family planning. Extending social interaction beyond one's core network may also modify the social environment within which such decisions occur. By broadening an individual's reference group, extended social networks may stimulate a reassessment of whether social norms oppose or support family planning.

Our results partially support earlier findings[28] that associations between group membership and contraceptive knowledge and use vary by group type. Of the four groups with enough respondents to allow for a between-group analysis (i.e., men's and women's religious groups, women's groups and sports clubs), only membership in a women's group had a direct effect on knowledge of family planning methods—most likely reflecting official family planning programs' use of such groups as information channels.

It is also likely that these formal dissemination activities stimulate informal discussions among the members of women's groups. Members of women's groups were more likely to discuss family planning than were women in religious groups, in which formal dissemination activities are probably less common. If women's groups merely replicated tightly knit core social networks, though, the increased discussion occurring within them would have little effect on extending a woman's social network. Since woman's groups are often a heterogeneous collection of women,[29] the increased discussions that occur within them are likely to bring together women who might not otherwise interact.

However, proximity to extended network members alone appears to be insufficient in explaining the differences between women's groups and other clubs. Women in religious groups were no more likely than nonmembers to have discussed family planning with their extended network, and no more likely to have discussed family planning with their core network. Also, it is reasonable to believe that participation in a sports club affords men the opportunity to interact with individuals outside of their core network. Therefore, it seems that while women's groups may increase the potential to discuss family planning within extended networks, they also appear to activate this potential by stimulating discussions involving family planning.

Earlier research focused on the economic activities of women's groups as facilitating contraceptive use,[30] but our analysis finds that two additional factors associated with women's groups may facilitate use among members. First, compared with members of religious groups, members of women's groups appear to be more likely to discuss family planning, possibly because of greater exposure to this information within their group. In addition, the greater heterogeneity within women's groups increases the likelihood that members will discuss family planning within an extended social network.

Table 6. Percentage of women and men, by awareness, approval and use of family planning, according to whether and within which network they had discussed family planning in the past year

Network	Aware of 5 methods	Approve of family planning	Ever used family planning	Currently use family planning
Women				
None	28.7*	55.2*	11.9*	5.4*
With core network only	51.8	81.5	40.0	23.4
With core and extended networks	68.1	89.5	57.3	33.6
Men				
None	27.4*	60.2*	18.0*	8.3*
With core network only	50.3	88.5	45.7	18.9
With core and extended networks	65.2	93.4	57.7	32.4

*Difference within column is statistically significant at p<.01 (chi-square test).

Table 7. Odds ratios (and standard errors) from multivariate analyses showing likelihood of family planning awareness, approval and use, by sex and network within which they had discussed family planning, according to whether model adjusts for background characteristics

Measure and network	Unadjusted	Adjusted
AWARE OF 5 METHODS		
Women		
Core network only	2.67 (0.31)*	2.04 (0.30)*
Core and extended networks	5.32 (0.13)†	3.56 (0.11)†
Men		
Core network only	2.69 (0.34)*	1.74 (0.26)*
Core and extended networks	4.98 (0.13)†	3.15 (0.12)†
APPROVE OF FAMILY PLANNING		
Women		
Core network only	3.57 (0.28)*	2.04 (0.12)*
Core and extended networks	6.90 (0.20)†	3.98 (0.17)†
Men		
Core network only	5.07 (0.26)*	4.48 (0.24)*
Core and extended networks	9.39 (0.23)†	7.02 (0.23)†
EVER USED FAMILY PLANNING		
Women		
Core network only	4.92 (0.29)*	4.12 (0.23)*
Core and extended networks	9.91 (0.33)†	9.04 (0.30)†
Men		
Core network only	3.84 (0.30)*	2.90 (0.24)*
Core and extended networks	6.21 (0.34)†	3.98 (0.31)†
CURRENTLY USE FAMILY PLANNING		
Women		
Core network only	5.29 (0.25)*	5.21 (0.24)*
Core and extended networks	8.78 (0.36)†	8.33 (0.31)†
Men		
Core network only	2.56 (0.27)*	1.84 (0.25)*
Core and extended networks	5.27 (0.20)†	3.20 (0.17)†

*Significantly different from "no discussion" group at p<.05. †Significantly different from "core network only" group at p<.05. *Note:* Adjusted odds ratios control for education, urban/rural residence, province, marital status, age, parity, socioeconomic status, exposure to radio messages and club membership.

While we believe that our findings lend support to the hypothesis that community groups may promote the diffusion of family planning through the development of extended social networks, the nature of the data that we used limits the strength of this conclusion. The identification of core and extended networks would be enhanced with the collection of sociometric data, where respondents are asked to list the specific individuals with whom they interact, the frequency of these interactions and whether they had discussed family planning with each individual.[31]

Lacking any specific information on the group activities to which respondents

were exposed, we also had to assume a uniform distinction between the different types of groups. While it may be true that women's groups tend to include a more heterogeneous collection of individuals than religious groups, it is likely that some women's groups are fairly homogeneous and that some religious groups are quite diverse. Similarly, we assumed that women's groups would tend to have formal family planning lectures and that religious groups would not. However, since group activities may be largely determined by the preferences of the group leaders and members, some members of women's groups may not have been exposed to official family planning messages, while some members of religious groups may have.

Finally, it is difficult to use cross-sectional data to ascertain the direction of causality between discussions of family planning and contraceptive use. In this article, we presume that discussions of family planning preceded use, although it is equally likely that women may have adopted family planning and then proceeded to discuss it with others. In view of these limitations, the results presented here should be interpreted as an initial statement on the link between group membership and the development of a social network regarding family planning.

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Resumen

Contexto: *Si bien se ha demostrado que existe una relación entre el hecho de ser miembro de un club social y la adopción de la planificación familiar, se sabe muy poco sobre la forma en que estos grupos promueven y difunden esta práctica.*

Métodos: *Se utilizaron datos de 2.213 mujeres de 15–49 años, y de 2.147 hombres de 15–54 años, obtenidos en la Situation Survey en Kenya de 1995, para examinar cómo la comunicación, dentro de las redes sociales, influya en la relación entre la participación en un club y el conocimiento, aprobación y uso de la planificación familiar.*

Resultados: *Los análisis, que controlaban los factores demográficos, indicaron que las mujeres miembros de clubes tenían unas probabilidades 2,3 veces mayores que las no miembros a conocer métodos anticonceptivos modernos. Los hombres miembros de clubes tenían unas probabilidades 1,5 veces mayores que los no miembros a conocer métodos anticonceptivos modernos y eran 1,7 veces más proclives a aprobar los servicios de planificación familiar. El hecho de pertenecer o no a un club no estuvo relacionado directamente con un incremento en el uso de anticonceptivos, aunque entre hombres y mujeres, la participación en un club estuvo relacionada con una probabilidad significativamente superior a mantener discusiones sobre el tema de la planificación familiar, tanto con miembros de la red social más cercano como con miembros de una red social más extendida. Las mujeres que habían mantenido discusiones sobre el tema de planificación familiar con miembros de estas dos tipos de redes sociales—cercano y extendida—eran unas 8,3 veces más propensas a haber estado utilizando en ese momento un anticonceptivo moderno, y los hombres que lo habían hecho eran unas 3,2 veces más proclives a haber estado usando un método que aquellos que charlaban sólo con las personas bien conocidas (grupo social más cercano).*

Conclusiones: *Al promover la discusión informal del tema de la planificación familiar dentro de un grupo con diversos tipos de miem-*

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Relationship of Social Affiliation…

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bros, los clubes sociales juegan un papel importante en la difusión de nueva información y de formas innovadoras de conducta.

Résumé

Contexte: *Bien que l'association entre l'adhésion à un club social et l'adoption du planning familial ait été démontrée, l'on en sait peu sur la manière dont ces groupes encouragent la diffusion des comportements afférents.*

Méthodes: *Les données relatives à 2.213 femmes âgées de 15 à 49 ans et 2.147 hommes âgés de 15 à 54 ans, interrogés dans le cadre d'une enquête menée au Kenya en 1995 sous le titre de Situation Survey, servent à l'examen du rôle de la communication au sein des réseaux sociaux dans l'association entre l'appartenance à un club et la conscience, l'approbation et la pratique du planning familial.*

Résultats: *Dans les analyses tenant compte de facteurs démographiques, les femmes membres de clubs féminins se sont révélées 1,3 fois plus susceptibles que les non-membres d'être sensibilisées aux méthodes de contraception modernes. Côté hommes, les membres de clubs masculins étaient 0,5 fois plus susceptibles que les non-membres d'y être sensibilisés, et 0,7 fois plus susceptibles d'approuver le planning familial. L'appartenance à un club n'est pas apparue directement associée à une pratique accrue de la contraception bien que, tant parmi les hommes que les femmes, cette participation se soit avérée associée à une probabilité nettement supérieure de discussions relatives au planning familial avec les membres des réseaux sociaux proches et étendus. Les femmes qui avaient eu de telles conversations avec les membres de leurs réseaux proches comme étendus se sont révélées 7,3 fois plus susceptibles de pratiquer une méthode de contraception moderne, et les hommes, 2,2 fois plus susceptibles d'y avoir recours par rapport à ceux qui avaient limité ce type de discussion à leur réseau proche.*

Conclusions: *A travers la promotion des conversations informelles relatives au planning familial au sein d'un groupe d'appartenances diverses, les clubs sociaux favorisent la diffusion de nouvelles informations et de comportements innovateurs.*