Title: Couples vs. Individual Family Planning Counseling: A Randomized Experiment

Authors: Marianne El-Khoury, Rebecca Thornton, Minki Chatterji, Sarah Kamhawi, Soonie Choi

Introduction

Men's preferences and power within a relationship and household play a critical role in reproductive health decision-making. However, reproductive health and family planning programs typically focus on women, neglecting to consider the role of men in those decisions. Mumtaz and Salway (2009) outline several critiques within the context of rural Punjab including an overemphasis on women's independence and autonomy and a lack of attention given to men's role in reproductive health. Even fertility studies and surveys (i.e. World Fertility Surveys, Demographic Health Surveys), have been almost exclusively aimed at women. Recent literature has found that reproductive health interventions that target couples are more likely to be effective than those directed to women alone (Becker, 1996). Several of those studies are randomized evaluations and find higher rates of the use of modern contraception when couples are counseled together (Bhalerao et al., 1984; Fisek and Suimbuloglu, 1978; Green et al., 1972; Mullany, Becker and Hindin 2006; Terefe and Larson, 1993; Wang et al., 1998). However, there is a lack of information identifying the mechanisms through which husband's inclusion affected take-up. Through a randomized experiment, this study measures the impact of individual and couples counseling on family planning outcomes such as knowledge, uptake, and fertility preferences. The rich set of data from both husband and wife allows us to identify the mechanisms through which counseling affects family planning decisions and attitudes.

There are several mechanisms through which we hypothesize family planning counseling – either alone, or as a couple – affects family planning uptake (Voas, 2003). Family planning counseling could increase knowledge of family planning methods or knowledge of where to access family planning services. This increased knowledge may affect preferences for a type of method, for example, by changing beliefs about safety or effectiveness, or through information about its availability. This could, in turn, influence family planning uptake. Family planning counseling may also directly affect fertility preferences.

In contrast to receiving counseling alone, couples' counseling provides a forum for increased communication between spouses which could increase knowledge about a partner's fertility preferences or increase one's comfort in communicating about family planning. There have been numerous cross-sectional studies that show positive correlations between spousal communication and contraceptive use (Donner 2008, Gayen and Raeside 2006, Islam, Padmadas and Smith 2006, Jejeebhoy 2000, Kamal 1999, Lozare 1976, Oni and McCarthy 1991, Raju 1987, Salway 1994). Another factor that may affect the impact of couples counseling is how a husband and wife bargain over fertility. There could be a simple bargaining rule in which either the low or high fertility preference prevails. Other simple heuristics may place more

weight on the preferences of either the man or the woman, or may depend on the individual's bargaining power within the household (Thomson 1989, 1990).

Our data on family planning knowledge, fertility preferences, spousal communication, and bargaining power allows us to identify which of these factors are most important for the individual or couples counseling.

Methods

We conducted the study in a low-income neighborhood of Amman, Jordan. In Jordan, anecdotal evidence suggests that husbands have important influences on women's fertility behavior and their attitudes towards family planning. Only 15 percent of women state that they alone made the decision for using contraception (DHS 2007). The majority, 80 percent, indicate that family planning is a joint decision made with both husband and wife (4 percent indicate that their husband is the primary decision maker for family planning decisions). Furthermore, women whose husbands approve of family planning methods are more than twice likely to use a modern method than those whose husbands disapprove (Strengthening Family Planning Project, 2011). This evidence supports the inclusion of husbands in family planning counseling. The DHS data also suggest differences in fertility preferences between husbands and wives in Jordan. Although 59 percent of women report that they want the same number of children as their husband, 24 percent report that their husband wants more, 9 percent report wanting more themselves, with 8 percent not knowing (DHS, 2007).

Our sample consists of 1,247 married non-pregnant women of reproductive age, living with their husbands, and not using a modern family planning method at the time of the sample selection. The sample was drawn from an enumeration of households to identify eligible women who provided informed consent to participate in the study. Following enumeration, we conducted baseline surveys using face-to-face interviews with the eligible women. Husbands were not interviewed at baseline.

After the completion of the baseline survey, women were randomly assigned to one of three groups: women who would be counseled alone (T1), women who would be counseled with their husbands (T2), and women who would receive no counseling (C). Randomization was stratified on previous use of modern methods and geographical area.

Approximately two weeks after completing the baseline survey, those who were selected into either individual or couples counseling were visited by a trained outreach health worker. Only those who fully completed the baseline survey were eligible for counseling. Counseling visits took place in a woman's home and typically included discussing the woman's (or the woman's and her husband's) plans regarding family size and spacing, concerns or rumors she/they might have heard about specific methods, queries regarding interest in specific methods, an explanation (showing actual products and a flipchart on method

use) of popular modern methods, as well as referrals for family planning. The community health workers followed specific protocols for counseling and making repeat home visits. Each visit was four to six weeks apart. For households selected to participate in couples counseling, the community health worker counseled the couple for at least the first household visit, with up to three attempts made.

Approximately six months after the baseline surveys, all women who had completed a baseline survey were approached to be re-interviewed for an endline survey. In addition, each woman's husband was also invited to be surveyed, separately from his wife.

We estimate the impact of the counseling interventions on outcomes (Y_i) as follows:

$$Y_i = \alpha + \beta_1 T_{1_i} + \beta_2 T_{2_i} + X_i{}'\gamma + \epsilon_i$$

T1 indicates that a woman was assigned to be counseled alone, T2 indicates that a woman was assigned to be counseled with her husband. β_1 and β_2 are the "intention to treat" (ITT) estimates. They indicate the difference in outcomes between women assigned to the control group and those assigned to one of the two counseling treatment groups. α is interpreted as the control group's regression-adjusted mean outcome. A vector of individual controls, X, includes variables such as age of the woman, level of education, years of marriage, number of children, and ever use of family planning at baseline. Because counseling was randomly assigned, the regression estimates will produce an unbiased estimate of β coefficients, the causal effect of counseling. We also test the difference between β_1 and β_2 to determine the differential impact of couple's counseling.

We run the regression on a number of outcome variables including family planning uptake at endline, knowledge of and attitudes towards family planning, and fertility preferences.

Preliminary Results

An examination of baseline characteristics confirms balanced randomization across the study three arms. Table 1 presents these means and the p-values of a joint F-test.

Table 2 presents the rate of compliance with the counseling intervention. No women from the control group received any counseling from the community outreach workers. Those assigned to the treatment arms either individual (T1), or couples counseling (T2) also showed a high rate of receiving the counseling. Among women assigned to individual counseling, 89 percent received at least one counseling visit. In the couples counseling group, only 64 percent of women had a complete couples counseling visit. The primary reasons were a husband's availability (15 percent), or refusal of the counseling by either the husband or wife (12 percent). Later analyses will account for this differential compliance. Our current analyses presents intention to treat estimates.

There were also some differences in response rates on the endline survey across the study arms with 84 percent of the control group, 76 percent of T1, and 74 percent of T2 completing an endline survey. The differential attrition from the endline survey poses some risk to internal validity by introducing some selection bias to the sample. We examine this further by testing for differential attrition across baseline characteristics (not shown). The rate of a successful endline interview with the husband was significantly lower: 57 percent among the control, 52 percent among T1, and 52 percent among T2. We find the difference across the treatment arms in husband's completion of the endline survey to be insignificant.

Table 3 shows preliminary results of separate OLS regressions on selected outcome variables. Counseling of any type appears to have a positive and significant impact on knowledge of modern family planning methods among both wives and husbands. Knowledge of modern methods among husbands is higher among the T1 group (compared to the control group), even though husbands were not part of the counseling sessions. This suggests some degree of communication between the wife who was counseled and her husband (who was not).

Current use of a modern method increased significantly by up to 10.6 percentage points. The difference in the effect across individual and couples counseling is not statistically significant.

Counseling also has a positive and significant impact on attitudes towards family planning, among both wives and husbands. Counseling, however, does not seem to affect fertility preferences; this results, with the increase in modern method use, suggests a desire to use family planning to space pregnancies and not necessarily to limit the number of children.

Additional results and analyses are forthcoming. Findings will be used to improve targeting of reproductive health and family planning programs in similar settings.

Table 1: Baseline Characteristics and Balancing

		Control		Treatment 1		Treatment 2		P value of F test
		Mean	SD	Mean	SD	Mean	SD	
Panel A: Baseline Demographic Characteristics		(1)		(2)		(5)		(4)
Age		32.391	0.386	31.496	0.384	32.401	0.385	0.162
Wife's Years of Education		10.731	0.171	10.892	0.17	10.651	0.17	0.598
Husband's Years of Education		10.625	0.186	10.52	0.185	10.638	0.186	0.885
Difference in Years of Education		2.657	0.125	2.414	0.125	2.741	0.125	0.161
Wife Employed		0.067	0.012	0.059	0.012	0.076	0.012	0.623
Husband Employed		0.886	0.015	0.928	0.014	0.87	0.015	0.019
Years of Marriage		12.205	0.38	11.172	0.379	11.99	0.379	0.127
Number of Children		3.019	0.09	2.86	0.09	2.947	0.09	0.462
Income (Unconditional)		482.108	36.487	432.299	36.355	555.401	36.399	0.055
Unconditional Income by Quintile (1-5)		2.886	0.069	2.894	0.068	2.99	0.069	0.496
Panel B: Baseline Fertility Characteristics								
Wife's Fertility Preference (# of children)		1.742	0.106	1.914	0.106	1.962	0.106	0.307
Wife's Perception of Husband's Fertility Preference (# of children)		2.385	0.136	2.464	0.137	2.566	0.137	0.644
Reason for non-use	Planning to get pregnant	0.195	0.019	0.191	0.019	0.218	0.0197	0.579
	Prefers traditional methods	0.304	0.022	0.261	0.021	0.269	0.021	0.339
	Partner opposes	0.05	0.01	0.043	0.01	0.045	0.01	0.87
	Rest from method	0.12	0.015	0.083	0.014	0.108	0.014	0.21
	Health reasons	0.241	0.02	0.225	0.02	0.25	0.02	0.7
	Fear of side effects	0.241	0.021	0.263	0.021	0.254	0.021	0.76
# of times discussed FP with husband		2.251	0.042	2.282	0.042	2.271	0.042	0.864
Discussed whether to have another child		0.797	0.024	0.767	0.024	0.742	0.024	0.282
Discussed when to have next child		0.783	0.024	0.781	0.024	0.729	0.024	0.207
Discussed whether to use a FP method		0.628	0.027	0.725	0.027	0.602	0.027	0.003
Husband advises against use of FP		0.238	0.025	0.259	0.024	0.245	0.024	0.843

Table 2: Counseling Intervention Compliance and Survey Attrition

Panel A: Visit 1 Counseling Outcome by Treatment Arm	C	T1	T2
	(1)	(2)	(3)
Completed	0.000	0.892	0.639
Women refused	0.000	0.026	0.052
Husband refused	0.000	0.012	0.067
Family moved	0.000	0.009	0.007
No answer	0.000	0.012	0.024
Woman busy	0.000	0.007	0.002
Husband not available	0.000	0.000	0.146
Other	0.000	0.040	0.060
No CCA visit	1.00	0.000	0.000
N	414	417	416

Panel B: Endline survey completion	C	T1	T2	P value of F test*
	(1)	(2)	(3)	(4)
Woman completed endline	0.843	0.755	0.743	0.001
Couple completed endline	0.570	0.520	0.519	0.246

Table 3: Impact of counseling interventions on selected outcomes

	# modern methods wife heard of	# modern methods husband heard of	Husband knowledge score (out of 13)	Wife's fertility preference	Husband's fertility preference	Wife's Endline Attitude Score	Husband's Endline Attitude Score	Wife's Endline Communication Score	Wife: Current use of modern method
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
T1	0.201*	0.325**	0.294	0.307	0.28	0.159*	0.116	-0.039	0.09**
	[0.090]	[0.109]	[0.255]	[0.173]	[0.249]	[0.075]	[0.089]	[0.082]	[0.032]
T2	0.286**	0.439**	0.649**	0.203	0.347	0.215**	0.234**	-0.048	0.106**
	[0.089]	[0.116]	[0.249]	[0.173]	[0.254]	[0.076]	[0.085]	[0.086]	[0.032]
Observations	973	669	669	932	647	973	669	972	973
R-squared	0.08	0.07	0.06	0.05	0.03	0.05	0.03	0.02	0.07
p-value of F test	0.377	0.324	0.167	0.572	0.807	0.463	0.154	0.923	0.658

Notes: Robust standard errors in brackets. Other covariates included (coefficients not shown). P-value of F test: H0: T1-T2=0. *significant at 5% level; **significant at 1% level.