Declining Contraceptive Prevalence in Pakistan: Evidence from FALAH Intervention

Significance/background

Pakistan is the fifth most populous country in the world with 207.8 million inhabitants (Pakistan Bureau of Statistics, 2017). At 3.6, Pakistan's Total Fertility Rate (TFR) is the highest in South Asia, with small decline during the last one decade (TFR of 4.1 in 2006 to 3.6 in 2018). Recent Pakistan Demographic and Health Survey (PDHS 2017-18) shows that the contraceptive prevalence rate (CPR) decreased during the last five years from 35.4% in 2013 to 34.2% in 2018. To fully understand this surprising decline in CPR, we evaluate the Family Advancement for Life and Health (FALAH) project. FALAH was implemented by the Population Council, an international non-governmental organization, from 2007 to 2012 with a goal to increase contraceptive use in selected districts covering 37% of the total population. The project was funded by the USAID with a total budget of $48.4 million. FALAH's full package of interventions included behavior change communication and measures to strengthen the health system along with community mobilization activities (Mahmood, 2012). The FALAH project also aimed to shift the focus of family planning programs away from traditional concept of promoting small families to a new concept that encourages birth spacing as a way to improve maternal and newborn health. This was aimed to help remove cultural and religious barriers to family planning and to create an overall acceptance in the society.

Our paper adds to the existing literature on the impact of large-scale interventions aimed at improving contraceptive use and increasing demand for family planning in low prevalence countries such as Pakistan. Our analysis will contribute to the active policy dialogue on the strategies required to address the stubbornly high fertility rate and low contraceptive use, which affects maternal and child health through multiple channels.

Objective

Our paper aims to evaluate the FALAH intervention to measure its success in increasing contraceptive use among Pakistani couples in selected ten districts. In addition, it will also evaluate the specific areas where it was aimed to bring change: knowledge of modern contraceptive methods, current use of modern contraceptive methods, increase in spacing between births, and ever use of modern contraceptive methods.

Data and Methods

The timing of two rounds of PDHS provides an ideal opportunity to evaluate FALAH project. Data for PDHS 2006-07 was collected in 2006, a year before FALAH started and PDHS 2012-13 was conducted the same year when FALAH intervention concluded. Ten intervention districts where the project was implemented for the entire duration of five years were sampled in both rounds of PDHS. Using the propensity score matching technique, we matched all married women of reproductive age (MWRA) from the program districts to those from non-program districts within the same province. We matched them on a wide range of characteristics, including age, type of residence (rural or urban), household wealth index, husband's education, number of living children, and human development index value of their district. This was done separately for the 2006-07 and 2012-13 data. For the combined matched sample of women, we compared the outcomes between women in program and non-program districts before (i.e., in 2006-

07) and after the program (i.e., in 2012-13) in a regression framework. We controlled for potential confounders, including those used in matching.

Preliminary Results

Our analytical sample consists of 1,307 pairs of MWRA in treatment and comparison group, matched using propensity scores. Table 1 shows that the women in comparison and treatment group were similar in terms of their age, education and wealth index (p-value > 0.05). Treatment and comparison groups were significantly different by husband's education and area of residence. Due to these dissimilarities, we used difference-in-differences technique to evaluate the impact of the intervention.

Table 2 shows a small positive change in overall CPR and in the use of modern contraceptive methods. However, both these changes were not significant. Effect on knowledge, ever use of contraception, and birth spacing was negative, but none of these results were statistically significant. The results indicate that the FALAH intervention did not have a significant impact on either of its intended outcomes.

During the last decade, the slow decline of fertility and almost a stagnant CPR was attributed to the focus of family planning program in Pakistan on promoting small families. FALAH intervention was expected to resonate better with the couples as it encouraged contraceptive use for birth spacing to improve maternal and child health. However, the discouraging results of the FALAH project show that more innovative interventions are needed to address the recent alarming decline in CPR.

In the second part of our paper, we will explore the reasons why the program had no effect on intended outcomes. We will do so using qualitative data available in the program documents. We will also explore if the program affected other intermediate outcomes.

Table 1: Characteristics of MWRA in intervention and comparison areas (in percent)

		Comparison area (n=1,307)	Intervention area (n=1,307)	p-value
Human development index of district (mean)		0.5 (0.2)	0.5 (0.1)	0.070
Province	Punjab	44.8	12.9	<0.001
	Sindh	19.1	63.6	
	KP	18.3	14.8	
	Balochistan	17.9	8.8	
Area	Rural	68.8	63.4	0.003
	Urban	31.2	36.6	
Woman's education level	No education	69.9	67.6	0.072
	Primary	15.2	13.5	
	Middle	4.1	5.4	
	Secondary	5.0	7.0	
	Higher	5.7	6.5	
Husband's education level	No education	36.4	32.1	0.003
	Primary	22.0	19.0	
	Middle	17.0	21.2	

	Secondary	18.4	19.8	
	Higher	6.2	8.0	
Wealth index	Poorest	22.3	22.9	0.087
	Poorer	27.1	23.1	
	Middle	21.3	20.6	
	Richer	16.8	19.6	
	Richest	12.5	13.8	
Age of the woman	15-19	5.7	5.3	0.600
	20-24	17.4	16.7	
	25-29	20.7	18.4	
	30-34	17.2	18.6	
	35-39	16.1	16.1	
	40-44	10.8	12.5	
	44-49	12.1	12.5	

Table 2: Difference-in-differences analysis for outcome variables

	Intervention area			Comparison area				
	Before (n=642)	After (n=665)	Difference	Before (n=642)	After (n=665)	Difference	**DID**	p-value
CPR	21.50	26.62	5.12	23.83	28.72	4.89	**0.23**	0.701
Current use of modern methods	18.22	22.71	4.49	17.91	20.45	2.54	**1.95**	0.379
Knowledge of at least one modern method	95.95	97.74	1.79	92.83	97.29	4.46	**-2.67**	0.120
Ever use of a modern method	33.33	42.86	9.53	31.93	42.71	10.78	**-1.25**	0.786
Birth interval (mean number of years)	3.25	3.22	-0.03	3.10	3.18	0.08	**-0.11**	0.436

Note: This table controls for the following characteristic of MWRA: area of residence, age, education level, husbands education, number of living children, and wealth index of the household.

References

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