

Pakistan is among the pioneering countries that started family planning programs in the 1950s, and despite having a long history of the family planning program, its contraceptive prevalence rate is low compared with other Asian countries (Guest, 2003; Miller *et al*, 2000) and Pakistan still has one of the highest total fertility rates (4.1) in Asia. However, a reasonable increase in contraceptive prevalence rate has been observed. As recorded in the Pakistan Fertility Survey (1975), the contraceptive prevalence rate was just 5 percent, while according to the recent estimates it has increased to 30 percent (all methods) and 22 percent (modern methods) among married women (Population Reference Bureau, 2007).

Contraceptive prevalence is considered an indicator of the effects of family planning programs. While it is obvious that IEC activities in Pakistan have helped to increase family planning knowledge up to a universal level (97%), yet the contraceptive prevalence rate remains very low. Conversely, the initial decline in fertility and increase in contraceptive use may be attributed to the gradual changes in social, economic, and cultural conditions (Rukanuddin, 2000; Mahmood, 2005). Few studies have been conducted in Pakistan on the role of family planning program factors' contributions toward the increase of contraceptive prevalence rate. Therefore, program factors' influence on contraceptive use behavior in Pakistan remains unclear.

This study, therefore, aims to determine whether and how family planning program factors such as family planning exposure in mass media and family planning workers' visits are associated with contraceptive use and future intentions to use among married women in Pakistan. As many other factors may influence contraceptive use and intentions, socio-demographic and cultural characteristics of the respondents will be controlled for. In this way, this study will attempt to specify and distinguish the net association of exposure to mass media and family planning workers with contraceptive use and intentions to use from other factors.

Materials and Methods

This study uses data extracted from The Pakistan Reproductive Health and Family Planning Survey (PRFFP) 2001, which was conducted by National Institute of Population

Studies. Data from an eligible sample of 6,370 currently married women were used to study about their current use of modern contraception. On the other hand, data from 5,083 women were used to study their intention to use in the next 12 months. The statistical tests were employed on weighted data to correct the unequal probabilities of selection due to the sampling design of the survey data. Two available components of the family planning program (mass media exposure and family planning workers' visits) from the PRFFP (2001) survey were considered as the main explanatory variables for the analyses.

Mass media: In the survey questionnaire women were asked to report their channel of mass media through which they were exposed to family planning messages in the previous few months. Three individual variables (TV, radio, and print media) were merged into one variable having eight categories as no exposure, radio only, TV only, print media (newspapers/magazines, posters, leaflet/brochure), radio & TV, radio & print media, TV & print media and all three media. The purpose of making these categories was to avoid potential multicollinearity among these individual variables.

Family planning workers: In the questionnaire, the respondents were asked whether they were visited by family planning worker in the last 12 months, and did they discuss family planning with them? These two questions were merged and classified as no visit, visit with family planning discussion, and visit without talking about family planning.

In order to determine whether family planning program factors have any net association with contraceptive use and intention to use, socio-demographic and cultural variables were included as potential confounding factors, such as age, education, residence, number of living children, desire for more children, spousal communication, husband's view about family planning adoption, and women mobility to any health/family planning facility.

Owing to cross-sectional nature of the data, it is difficult to establish the cause-effect relationship between independent and dependent variables and to evaluate the family planning program's impact on the outcome variables. Further the survey was conducted in 2000-01, the recent available data set for this study, which may raise the questions on its timeliness.

Table 4: Odds ratios of using modern contraceptives & intentions by mass media exposure & family planning workers visits, after controlling for socio-demographic factors, Pakistan 2000-01

Characteristics	Currently using modern contraceptives Odds Ratios		Intend to use modern contraceptives Odds Ratios	
	Model I	Model II	Model I	Model II
Age				
15-19 (r)	1.00	1.00	1.00	1.00
20-29	3.31***	3.24***	.92	.93
30-39	5.08***	4.90***	.53**	.53***
40-49	5.81***	5.61***	.16***	.16***
Education				
No education	1.00	1.00	1.00	1.00
Primary	1.27*	1.21	.99	1.01
Secondary	1.44***	1.37***	1.00	1.03
Higher Secondary & above	1.28	1.21	1.07	1.10
Residential area				
Rural (r)	1.00	1.00	1.00	1.00
Urban	1.49***	1.43***	1.13	1.09
Major urban	2.15***	2.04***	1.23	1.24
No of living children				
0-2 (r)	1.00	1.00	1.00	1.00
3-4	2.36***	2.38***	.91	.92
5+	3.19***	3.23***	1.43***	1.42**
Talked about FP with husband				
Never (r)	1.00	1.00	1.00	1.00
Once or twice	1.53***	1.50***	2.55***	2.62***
More often	2.38***	2.31***	2.95***	2.99***
Husband's view about FP				
Disapprove (r)	1.00	1.00	1.00	1.00
Approve	6.01***	5.84***	2.72***	2.75***
Don't Know	.54***	.53***	1.07	1.06
Desire for more children				
No desire (r)	-	-	1.00	1.00
Want a child	-	-	9.63***	9.62***
Up to God	-	-	26.73***	26.71***
Undecided	-	-	7.71**	7.45*
Mobility				
Not visited any health/FP facility(r)	1.00	1.00	1.00	1.00
Cannot go alone	1.12	1.11	1.24*	1.27
Can go alone	1.54***	1.54**	.91	.94
Mass media				
None (r)		1.00		1.00
Radio only		1.01		.72 †
TV only		1.15		.95
Print Media		1.44		.69
Radio & TV		1.17		.97
Radio & Print media		2.11		2.50
TV & Print media		1.27		.79
All media		1.14		.94
Visits by FP Workers				
None (r)		1.00		1.00
Visit with FP discussion		1.24*		.87
Visit without FP discussion		.82		.80*
Wald χ^2	797.22	834.48	650.33	733.69
Pseudo R²	0.24	0.24	0.17	0.20

* Significant at p = 0.05, ** p = 0.01, *** p = 0.001, (r) = reference category † = Significant at p ≤ 0.1

Multivariate logistic regression models were employed for binary responses of two outcome variables separately. Model I considers only socio-demographic factors as explanatory variables and Model II includes mass media exposure and visits by family planning workers while taking into account socio-demographic and cultural factors as control variables. The association of family planning workers' visits with modern contraception confirms the previous studies. On the part of media exposure, the lack of a difference in respect to contraceptive use contradicts many studies not only conducted in Pakistan but anywhere else. For future intention to use contraceptives among non-users, none of family planning program factors i.e. exposure to mass media and family planning workers appeared having significant effect. Such empirical evidence do not support previous studies.

The findings of this study provide some indication that family planning program factors were suppressed in the presence of socio-demographic factors and could not established fully their independent net effect on fertility behavior of the respondents. There is a need for more focused IEC/BCC campaigns which expand the coverage and improve family planning services and adoption. A multi media campaign should be devised to sensitize husbands/men who opposed the adoption of contraceptives about the benefits of small family size.