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Fertility Preferences and Contraceptive Use in Pakistan

GHULAM YASIN SOOMRO and M. NASEEM IQBAL FAROOQUI*

INTRODUCTION

Pakistan, established in 1947, is currently experiencing one of the highest growth rates of population in the world. If the 1972–81 intercensal growth rate continues, the population size would be approximately 95 million in 1985 and 150 million by the year 2000. The growing population size is already straining the scarce resources of the country and will further aggravate the level of socio-economic development; for the family planning programme which was launched to check the pace of population growth has not produced any tangible results. The major criterion for the successful implementation of a programme is that there should exist an effective demand in the society which should be matched equally with the supply. In Pakistan, the reverse has been experienced so far. The programme has been very active in maintaining an adequate supply of contraceptives without perceiving the demand situation. For the desired achievement of a programme three preconditions deduced from the demographic transition theory have been set forth by Coale [3]. The demand aspect of these includes perceived choice of an individual and favourable socio-economic conditions for declined fertility. In order to facilitate transformation of the perceived choice into behaviour, the availability of appropriate contraceptive technology is essential.

During the last 20 years, three post-programme demographic surveys were conducted in Pakistan at the national level to capture, among other demographic indicators, the knowledge, attitude and practice levels. These surveys revealed a prevalence rate of 5.5 percent in 1965, of 5.2 percent in 1975 and of 4.2 percent in 1979. It may be pointed out that during this period (1965–79) the programme underwent several well-conceived and logically consistent changes aimed at improving

*Research Demographers, Pakistan Institute of Development Economics (PIDE), Islamabad.

availability and supply situation to enhance acceptance but they did not produce any tangible results. The programme acceptors have been women of high age and parity, presumably under demographic pressure, indicating that use has primarily been for limiting purposes. This implies that fertility levels are at an earlier stage of demographic transition and the programme is at the stage of recency. In these circumstances, it becomes important to analyse the child-bearing attitude in the target population of Pakistan. The attitudinal preferences measured through the responses to questions about the levels of desired and ideal family size are expressive and can be easily used for analysing the future shape of fertility, process of fertility choices, understanding of wanted and unwanted concepts and motivation for future contraceptive use. The analysis of family size preferences provides an insight into the consistency between reproductive attitudes and behaviour of couples described in the temporal sequence of ideal, desired, intended, expected and actual family size levels [6]. The decision on family size preferences, it is argued, is not formal in nature but rather a response to prevalent social pressures and serves as a fairly accurate predictor to completed family size levels [2]. Ryder argues that couples choose a reproductive target and are almost successful in hitting it depending upon the reproductive norms they have internalized [5]. In the case of Pakistan DeTray noted: "... it does confirm that desires for specific number of children are important in influencing couples' behaviour: in fact in Pakistan these demand factors appear to dominate contraceptive choice decisions" [4]. However, reliability of these attitudinal responses is often doubted in terms of its predictability towards completed family size. Still, questions on desired and ideal family-size levels have been widely asked in sample surveys conducted the world over [8].

OBJECTIVE

The objective of this paper is, therefore, to analyse the levels and trends of fertility preferences in Pakistan during the 1975–1980 period and to see if any changes in the preferences have occurred over time even in the absence of the information, education and communication (IE&C) component of the family planning programme. Our hypothesis is that there exists a concious choice of reproductive goals among married couples and there is no likelihood of any significant change in these expressed choices over time for the last twenty years. A short gap in communication would not produce any sizeable change in the already in-built reproductive perceptions of the couples.

DATA AND THEIR LIMITATIONS

In this study, data from the Population, Labour Force and Migration (PLM) survey have been utilized. This survey, sponsored by the UNFPA and the ILO, was

conducted by the Pakistan Institute of Development Economics in 1979-80. In the PLM Survey, the fertility component repeated the questionnaire of the Pakistan Fertility Survey (PFS) without any modifications. A comparison of fertility preferences obtained through the PLM (1979-80) survey have been made with those of the PFS of 1975.

The question asked on ideal family size was, "In your opinion how many children should a married couple have?" The question on ideal family size was asked to know the generalized ideal family size rather than the personal ideal. However, this type of information has certain of limitations. The question on ideal family size may create some conceptualization problems for a respondent. When a woman is asked to express an abstract generalized ideal as was done in Pakistan, chances are that she might have been confused it with her personal attitude. Moreover, the component of sex preferences for children is not included in the question and information gathered on ideal family size does not explain whether the expressed number is for live births or for surviving children. Another measure of preference, the desired family size which is defined as the surviving children with additional number of children wanted, has its own limitations. Ryder [5], while explaining the problems involved in estimating the desired family size, pointed out that "this does give us a number for every respondent, but the outcome is a bastard mixture of hard and soft data with the proportion of each depending on respondent's reproductive location". The outcome of responses to questions on wanting and not wanting more children has some inherent problems stemming from its conceptualization. The women who expressed their desires either way posed the problem of definition and accuracy of expressed attitudes as well as their actual behaviour. The pregnant low-parity female respondents counted for the next parity would normally desire more children, thereby making their responses positive in a pronouncedly biased way.

RESULTS AND DISCUSSION

In order to evaluate the reliability of PLM data on fertility preferences, a consistency check on the responses of wanting or not wanting any more children with the number of surviving children was performed. The consistency exercise revealed 86 percent consistent responses from the PLM survey (Table 1). A similar test on PFS data revealed up to 85 percent consistent responses. This exercise, therefore, reveals that the quality of fertility preferences data of PLM is equally comparable with that of corresponding PFS data.

The measure of family size preferences and actual fertility are shown in Table 2 for all currently married women. The ideal number of children is slightly higher in PLM than in PFS whereas the children ever born are closely comparable for both the surveys.

Table 1

Consistency Check on Responses of Currently Married Women According to their Desired versus Living Number of Children, Pakistan: PFS 1975 and PLM Survey 1979-80

Desired versus Living Children	PFS 1975	PLMS 1979-80
Consistent Responses		
1. Desired ≤ Living, Want No More	39.0	33.4
2. Desired > Living, Want More	46.0	52.4
Total Consistent Responses	85.0	85.8
Inconsistent Responses		
1. Desired ≤ Living, Want More	6	4.1
2. Desired > Living, Want No More	9	10.1
Total Inconsistent	15	14.2

Note: PFS = Pakistan Fertility Survey (conducted by the Population Planning of Pakistan)
PLMS = Population, Labour Force and Migration Survey (conducted by the Pakistan Institute of Development Economics)

Table 2

Mean Number of Ideal, Ever Born, Living, Desired and Unwanted Children among All Currently Married Women in Pakistan: PFS 1975 and PLM Survey 1979-80

Ideal No. of Children		No. of Children Ever Born		Total Fertility Rate		No. of Living Children		No. of Desired Children		Potential Fertility		Unwanted Fertility	
PFS	PLM	PFS	PLM	PFS	PLM	PFS	PLM	PFS	PLM	PFS	PLM	PFS	PLM
4.2	4.6	6.9	6.9	6.3	6.5	5.1	5.0	4.4	4.5	6.9	7.0	2.5	2.6

The figures of fertility preferences show comparability of desired number with ideal number of children. However, completed fertility appeared to be higher than surviving fertility. The factor of infant and child mortality probably influenced the family size combinations. It appears that couples make rational decisions to achieve their ideal family size and adjust their completed family size accordingly.

The potential fertility estimates were derived by application of the Prevalence Model developed by Bongaarts[1] [1]. In order to arrive at the measure of excessive or unwanted fertility, a difference between potential and desired fertility was considered a measure of unwanted fertility. The level of unwanted fertility appeared to be over two children which stayed almost constant between 1975 and 1979-80. The constancy of the measure is reflective of a weaker programme, unchanged fertility levels and fertility preferences in Pakistan during the period under study.

Table 3 shows attitudinal and behavioural performance of fertility by age of women. The ideal family size is higher in the PLM survey and slightly increases with women's age. The increasing trend in ideals by age could also be observed in PFS but at slightly lower levels in each age group compared with the PLM. The figures for children ever born (CEB) at the terminal age group are higher than the ideal family

Table 3

Mean Number of Children Ever Born, Living, Wanted Additional Children and Ideal Family Size by Age for All Currently Married Women in Pakistan: PFS 1975 and PLM Survey 1979-80

Age	Ideal Family Size		No. of Children Ever Born		No. of Living Children		Desired Family Size	
	PFS	PLMS	PFS	PLMS	PFS	PLMS	PFS	PLMS
15–19	4.1	4.3	0.6	0.4	0.5	0.4	3.6	4.0
20–24	4.0	4.3	1.9	1.5	1.5	1.3	3.6	4.0
25–29	4.2	4.6	3.4	3.0	2.8	2.5	4.1	4.3
30–34	4.2	4.7	5.0	4.5	4.0	3.8	4.7	4.9
35–39	4.3	4.8	6.0	5.6	4.9	4.6	5.3	5.2
40–44	4.4	4.8	7.0	6.2	5.2	5.0	5.4	5.4
45–49	4.4	5.1	6.9	6.9	5.1	5.4	5.2	5.6

Sources: (a) Population, Labour Force and Migration (PLM) Survey Fertility Module, 1979-80.
(b) Pakistan Fertility Survey (PFS) First Report, 1976.

[1] Potential fertility estimates were arrived at the following formula:–

PAF = AF (1−Cxu'')/(1−CX(u'+u''))

Where:

PAF = Potential Age specific fertility rate
AF = Age specific fertility rate
C(a) = Elasticity Coefficients by age
u' = Prevelance of programme contraception by age
u'' = Prevalence of non-programme contraception.

size levels. The discrepancy appeared to be of the magnitude of two children. The obvious factor influencing the decisions was infant and child mortality which could be observed by the gap between living and ever-born children in each age group of women. When the parents achieve four living children, almost equal to their ideal number, they, on the average, prefer to have one more child. This is probably due to an insurance effect against mortality or due to desired sex composition of family size. The age differentials for family size preferences reveal that younger women desire more children in anticipation of completing their ideal number in the prevailing mortality and sex preference atmosphere. However, when completed family size of older women is analysed, it appears that it surpassed their ideal number. This probably is the reason why generalized ideal number, if increasing with age, is biasing it with the personal experiences.

Table 4 provides information on women who do not want any more children. This is a very important indicator which reflects the prevalent desire to limit the family size. In the PLM survey, 40 percent women reported their desire to stop childbearing whereas 43 percent reported similar attitudes in the PFS. This reflects that the number of women who want more children has increased over time. This finding could also be supported by responses of nearly 54 percent never-users some of whom reported wanting children as a reason for non-use [7]. The younger women expressed a lesser willingness for not having any more children. The older women aged 30 and over expressed a greater desire for limiting their family size. Similarly, women with four living children expressed higher preferences for limiting their family size. These findings hold for both the surveys. The results suggest that as women get older and near higher parity, they desire not to have any more children. In comparison with those in the PFS, the women in the PLM survey reported lower preferences for not having children in all age groups and in entire range of number of living children.

However, 62 percent women in the age group of 35–39, and 61 percent with 4 living children in the PLM survey do not want more children. The women with these characteristics appear to be the primary target for family planning administration if they are not practising any form of contraception. The women with higher education in both surveys expressed desire to limit fertility. Women with primary-level education roughly had the same attitudes towards fertility as illiterates, showing that there was no impact of primary-level education.

Table 5 exhibits the sex composition of children in the historic perspective of son preference in the family size by age of mother. It appears that at least one surviving son in the family positively affects the attitudes towards limiting the family size. Although preferences expressed in the PLM survey are lower compared to those in the PFS still these confirm the same pattern of increasing preferences for limiting family size by age of mother with at least one living son in the family. This provides

insight into the favourable cultural and personal biases of having at least one surviving son for the completed family size.

The desire to have more children is shown in Appendix Table 1 by background characteristics of mothers. The desire to have more children declines with advancement in age and the number of living children. However, there appeared to be slightly higher fertility preferences in the PLM survey, which is more pronounced among the younger mothers.

Table 4

Percentage Distribution of Currently Married, Fecund and Pregnant Women who do not Want More Children by Age and Number of Living Children, Pakistan: PFS 1975 and PLM Survey 1979-80

Age	PFS	PLMS
	By Age	
Total	43	40
15–19	4	2
20–24	18	9
25–29	39	27
30–34	61	49
35–39	74	64
40–44	84	75
45–50	93	79
	By Number of Living Children	
0	2	0
1	7	4
2	30	16
3	48	35
4	69	61
5	78	73
6	90	81
7+	94	88
	By Education	
No School	47	36
Primary	46	37
Secondary + Higher	51	40

Sources: (a) Population, Labour Force and Migration (PLM) Survey Fertility Module, 1979-80.
(b) Pakistan Fertility Survey (PFS) First Report, 1976.

Table 5

Percentage Age Distribution of Currently Married Non-pregnant Women who Wanted no More Children by Number of Living Children and Sons: Pakistan PFS 1975 and PLM Survey 1979-80

Age	No. of Living Children							
	One				Two			
	No. of living sons				No. of living sons			
	Zero		One		Zero		One	
	PFS	PLMS	PFS	PLMS	PFS	PLMS	PFS	PLMS
Less than 25	0	1	5	3	5	1	26	26
25–35	2	2	14	4	1	5	28	19
35–44	14	5	21	27	41	21	63	52
45+	56	27	88	64	100	55	85	71
All	4	2	11	8	12	10	35	25

Sources: (a) PLM Survey Fertility Module 1979-80.
(b) Pakistan Fertility Survey (PFS) First Report 1976.

Table 6 shows contraceptive practices by background variables which are related to the family size preferences. The overall contraceptive levels appear to be 4 percent in the PLM survey compared with 6 percent in the PFS. This shows a little decline in the use levels in Pakistan [7]. The use levels, when studied by age, reveal an increase in use with the progress in age in both PLM survey and the PFS. However, use levels are lower in the former for all age groups than in the latter. Similar patterns could be observed for the number of living children and sons. The use levels in the PLM survey are almost non-existent at zero and first parity and only equal the overall average when family size consists of three living children. Similar results hold for the PFS. The use levels in the PLM survey increase when two living sons are in the family size. At the corresponding level, the use was almost twice as great in the PFS. This shows an element of son preference in use decisions, i.e. living sons are an integral part in the completed family size. These use patterns suggest that high age and parity women practise contraception out of demographic pressure. Moreover, the use levels in Pakistan are primarily for limiting the family size.

The women who do not want any more children presumably are those who have completed their family size and were practising reasonably higher levels of contraception than those who wanted children. The other consistency measure of completed family size in line with ideals is a comparison with living children. This shows that women whose living children are more than ideal and who also want no

Table 6

Percentage Distribution of Women Currently using Contraceptives by Background Variables, PFS 1975 and PLM Survey 1979-80

	PFS	PLM
By Age		
<25	2	1
25–34	8	3
35+	9	3
By Number of Living Children		
0	0	0
1	1	1
2	4	2
3	6	3
4	7	4
5+	12	4
By Number of Living Sons		
0	1	1
1	5	2
2	8	4
3+	11	6
Wanted more Children		
No	7	5
Yes	1	1
Ideal vs. Living		
Ideal < Living	12	10
Ideal = Living	6	6
Ideal > Living	1	1
Ideal vs. Living/Wanted		
Ideal ≤ Living, want no more	10	8
Ideal ≥ Living, want no more	5	3
Ideal ≤ Living, want no more	3	2
Ideal ≥ Living, want more	1	1
Wife's Education		
None	5	2
Primary	12	4
Secondary	27	13
Type of Residence		
Urban	15	6
Rural	3	1
All	6	4

Sources: (a) Population, Labour Force and Migration (PLM) Survey Fertility Module, 1979-80.
(b) Pakistan Fertility Survey (PFS) First Report, 1976.

more children were practising higher contraception than those whose living children's number equalled the ideal family size. However, use level among those women who have not achieved ideal family size is virtually non-existent. The effect of education on use levels is greater than that of any other bakground variable. In both the PLM survey and the PFS, use is very low among the uneducated but increases with educational levels. This reflects family size norms among the educated couples and their amount of awareness of the need to limit family size. The urban-rural differences in use show that use levels were higher in urban areas in both the PLM survey and the PFS. However, use levels show a decline in urban areas in the PLM survey against the levels revealed in PFS. The use levels in rural areas also appeared to have declined in the PLM survey.

This shows the contracepting tendency of women who do not want more children or whose actual family size is greater than their ideal family size. Moreover, these groups of women appeared to be consistent in their expressed desires.

SUMMARY AND CONCLUSION

The analysis of data obtained for the two national surveys indicates that the surveys in question are highly consistent with regard to fertility preferences. They also indicate that the magnitude of family size preferences did not change appreciably between the two surveys. Moreover, the period and cumulative fertility behaviour in both the surveys did not record any significant variation. The same hold for the measure of unwanted fertility. However, there appears to be a slight variation in fertility attitudes. In the PFS the ideal family size was 4.2 compared with 4.6 in the PLM survey. As regards the desire for more children, 43 percent married women did not want to have any more children in the PFS compared to 40 percent in the PLM survey. These variations apparently show an increase in the fertility preferences. However, when analysed carefully, they tend to show that the differences are the result of the differential impact of survey methodology, sampling variability and coverage. The sample size of the PLM survey was twice that of PFS and in the former the proportion of low-parity females was slightly higher as compared to that in the PFS. The percentage of women whose living children were more than or equal to their desired number of children was 33 percent in the PLM survey compared to 39 percent in the PFS. On the other hand, the women whose living children were less than the desired children and also wanted more children were 52 percent in the PLM survey as against 46 percent in the PFS. The examination of contraceptive use reveals that the prevalence level was lower in the PLM survey. The PLM survey use rate was based on responses given by women who had knowledge of at least one contraceptive method. These were only 29 percent in the PLM survey as against 75 percent in the PFS. Therefore, it seems a problem of concealment in the PLM survey rather than an expression of facts. Had the same number of women

been asked question on contraceptive use in both the surveys, the results might have been different. However, when contraceptive behaviour was analysed with the reported fertility preferences, it appeared that the women were quite consistent in their stated fertility attitudes.

On the basis of the results derived from this study and the PFS, a substantial number of married women can be observed who do not want any more children (43 percent in the PFS and 40 percent in the PLM survey). These women appear to be suceptible clients of family planning programme. It proves that demand for contraceptive services already exists in a significant portion of married women. What is needed is an effective exploitation of the existing demand through an efficient supply of contraceptive services in terms of both their convenient availability and accessibility.

Appendix

Appendix Table 1

Mean Number of Additional Children wanted by Currently Married Women (CMWs), by Age and Number of Living Children, Pakistan PFS 1975 and PLM Survey 1979-80

	PFS	PLMS
By Age of CMWs		
<20	3.1	3.6
20–24	2.1	2.7
25–29	1.3	1.8
30–34	0.7	1.1
35–39	0.4	0.6
40–44	0.2	0.4
45–49	0.1	0.1
All	**1.2**	**1.4**
By Number of CMWs Living Children		
0	3.6	4.0
1	2.4	3.0
2	1.3	1.9
3	0.9	1.2
4	0.5	0.5
5	0.4	0.3
6	0.2	0.2
7+	0.1	0.1
All	**1.2**	**1.4**

Sources: (a) Population, Labour Force and Migration (PLM) Survey Fertility Module, 1979-80.
(b) Pakistan Fertility Survey (PFS) First Report, 1976.

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Comments on "Fertility Preferences and Contraceptive Use in Pakistan"

I have already made an oral presentation giving my comments on the above-mentioned paper presented in the session. However, written comments based on recalled memory are as follows:–

The authors have to a great extent based their analysis on PLM survey data relating to fertility preferences and contraceptive use. Their analysis need not be questioned as the limitation of quality of data relating to fertility module of the PLM survey has been a controversial issue.

The Population Welfare Programme through government channels was established in 1960 and not in 1965 as mentioned by the authors.

The authors have also made a comparison based on data from PFS and the PLM survey. It is a questionable matter whether the comparison of two sets of data is feasible and meaningful. Generally, comparisons yield confusing results owing to difference in the operational methodology of data collection in two surveys, the quality of training of interviewing staff and the contents of training. No doubt the questionnaire as designed for PFS was replicated in the PLM survey. This does not mean that the data collected through this questionnaire in two different surveys will be feasible for drawing some sort of comparison. There are several other factors such as training of master trainers for imparting training to field staff, training of supervisors and contents of the training and quality of supervision which are needed to be analysed for assessing the quality of data in both the surveys.

On the basis of my involvement in the PLM survey, I can say that the training component was extremely poor as only one-day training was given to the interviewers to undertake data collection on this sophisticated questionnaire. Although among the 48 staff interviewers, there were about 20 staff interviewers who had the experience of collection of data in the PFS, the remaining staff interviewers did not have any background of data collection from the respondent.

No proper manuals for staff interviewers and supervisors were developed adequately and the entire job was left to the contractor.

Questions like "ideal family size" and "contraceptive use" relate to reproductive attitude and behaviour of couples, and it requires a great skill to dig out information from the respondent on such issues. If asked in a casual way without proper or skilled probing, the respondent is also expected to answer in a casual way.

The deficiencies pointed out by other experts, relating to the execution of the survey, have resulted in a wide range of difference in the findings of the two surveys conducted in 1975 and 1979, e.g. the level of knowledge of contraceptives on the basis of the PLM survey has declined from 75 percent in 1975 to 29 percent in 1979. The debatable issue is how the level of knowledge of contraceptives could so drastically decline when the cohort of population over a 5-year period has not changed. Similarly, the level of contraceptive practice on the basis of the PLM survey has declined from 6 percent to 4 percent. When data on other surveys like Impact Survey and Contraceptive Use Prevalence Survey (CUPS) 1977 are analysed, the findings of these surveys match the findings of PFS to a great extent.

The methodological aspect of the paper is weak and analysis has been based only on cross-tabs. The empirical analysis of fertility preferences requires controlling of a battery of socio-economic and demographic variables which simply cannot be studied by cross-tabs. It would have been appropriate if the authors had studied this aspect by applying multivariate analysis.

The analysis of ideal and desired family sizes, based on cross-sectional surveys, may not lead to a conclusive finding. Analysis of attitudinal aspects would have been stronger if it was based on follow-up information which is unfortunately lacking in Pakistan. It would, therefore, be difficult to draw inferences on attitude–behaviour relationship for family formation and contraceptive use in Pakistan.

It is, therefore, imperative that the comparison of two sets of data be carefully undertaken with supportive information of quality of data on both the sets which are taken for comparison purposes.

I would appreciate if the authors, who have done an excellent work in presenting this paper, would also take serious note of the quality of data.

Khalil A. Siddiqui

Director General,
Monitoring and Statistics,
Population Welfare Division,
Government of Pakistan,
Islamabad