

An Attempt to Measure Female Status in Pakistan and its Impact on Reproductive Behaviour

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INTRODUCTION

Growing concern about increase in female literacy and improvement in their socio-economic conditions is an offshoot of the growing awareness and concern about the population problem among planners and policy-makers. The explosive rate of population growth is a major obstacle to achieving a better quality of life for the majority of the populace in Pakistan. An uplift in the status of females through increased educational and employment opportunities lead to fertility decline. Several studies have been conducted in past decades to study the indicators of female status and its impact on fertility in Pakistan. Female education has been conventionally considered as an indicator of female status. There is a consensus in terms of the inverse relationship between female education and fertility that education, even upto primary level, does lead to fertility decline. Most population programmes in developing countries advocate in favour of female literacy.

The impact of female employment on fertility is however, not very clear in case of Pakistan [Sathar (1989)]. The findings of her study indicate that employment influenced fertility negatively in the case of women in higher status and positively in the case of lower status occupations. In the case of poorer women, the lack of a negative association between employment and fertility may be due to the fact that these women already had a large number of children before starting work.

The present study is an attempt to measure female status with the Pakistan Demographic and Health Survey data (1991) and study the impact of female status on fertility, desired family size, contraceptive use and attitudes of females and their spouses. The specific questions investigated in this paper are: Does an uplift in the status of females lead to:

- (i) A decline in fertility levels;
- (ii) wider adoption of contraception by females to control their reproductive system;

- (iii) greater participation of women in decision-making about family size and communication with spouses on family planning for exercise of rational choice in family size; and
- (iv) lesser preference for sons as a source of socio-economic security.

The PDHS sample although representative is not ideally suited for an in-depth study of the impact of female status on reproductive behaviour as a large proportion of women in the sample are illiterate and not working.

THEORETICAL BACKGROUND

Female status can be defined and studied from different dimensions in terms of differing emphasis and therefore is a complex phenomenon. The term status is used, first, to denote the access to resources such as economic, gainful employment and health services and, second, the position (power, prestige, authority) that a woman has in various situations. Safilios (1982) defines the status of women in terms of the power they wield in the family and society. Thus, female power can be defined as women's ability to control or change other women's or men's behaviour and the ability to determine important events in their lives even when men and older women are opposed to them [Mahadevan (1989)]. The overall status of women have various dimensions in different contexts. This multi-dimensional and dynamic concept must be considered on a relative basis. It comprises dimensions like the importance of one's own legacy and achievements including money, property, materials, merits, privileges, access to resources, benefits, comforts, power and decision-making autonomy. Along with such roles and opportunities, progressive characteristics and achievements also indicate female status. All these may lead to efficiency and better quality of life of women in many social spheres. An uplift in the status of women due to an increase in educational and employment opportunities enables her to have greater control over her reproductive behaviour and enhances her participation in familial and social contexts. This ultimately leads to a fertility decline as has been experienced by the developed countries and some developing countries. The effect of education on fertility reduction manifests itself through an increase in age at marriage and thereby reducing the length of her reproductive period and also by increasing the opportunity cost of her time as she becomes a potential entrant to the labour force. The higher the level of educational attainment of a woman the higher is the likelihood of her entrance into the formal labour force and due to the higher opportunity cost of their time their decision-making of family size is influenced by the economic factor. However, for most women in developing countries this is not the case due to massive illiteracy and lack of employment opportunities in the formal sector as well as due to lack of paid employment opportunities. In this situation, women either work in their homes and

earn cash or those women who work outside their homes for cash or kind have their daughters or other female household members to look after their siblings. Such women primarily work for financial need and they often enter the labour market after having the desired number of children but some also during their reproductive period. Since their work pattern does not come into direct conflict with their child-bearing roles, the impact of employment on fertility is likely to be minimal.

In the patriarchal society of Pakistan the position and status of women are likely to be influenced by the status of fathers, husbands or sons. Husbands' education and occupational levels therefore, are likely to influence the status/position of married females in the society and is likely to have a direct bearing on the decision-making process about family size and influencing their own decisions as well.

MEASUREMENT OF FEMALE STATUS—METHODOLOGY

In this paper, the status of females is measured using the following indicators:

- Educational level of females;
- husband's educational level;
- females current work status according to mode of payment;
- occupational level of females;
- husbands' occupational level;
- exposure to media (Newspaper , Radio, Television); and
- mobility

The status of females is increased by the total weighted cumulative scores on the above indicators and is grouped under three categories, i.e. high, medium and low with equidistant cut of points between the three groups. Thus, women who cumulatively scored from the lowest value to one were categorised under the lower status group, those who scored from 1.1 to 2 were grouped under the medium status group and those who scored onwards were categorised under the higher status group. The weights assigned to each indicator were on an intuitive basis. The highest weight i.e. thirty percent was assigned to female occupation; female education and employment variables were given an equal weight of 20 percent each, husband's education and occupation were assigned a lower weight of 10 percent each and the lowest weight of 5 percent each was assigned to media and mobility variables.

Table 1 gives the distribution of female status in Pakistan.

Table 1
Distribution of Female Status

Female Status	Total		Urban		Rural	
	Frēquency	Percent	Frequency	Percent	Frequency	Percent
Lower	4533	68.6%	1949	57.8%	2584	80.1%
Medium	1972	29.8	1341	39.5	631	19.5
Higher	106	1.6	94	2.7	12	0.4
Total	6611	100.0	3384	100.0	3227	100.0

Table 1 indicates that 69 percent women are in the lower status whereas 29 percent women are in medium and only 2 percent women belong to higher status. In terms of urban-rural classification, 57 percent urban and 80 percent rural women belong to the lower status; 40 percent urban and 20 percent rural women belong to medium whereas 3 percent urban and less than 1 percent rural women belong to the higher status. The status of females is negatively correlated with their place of residence i.e. rural or urban. The urban-rural differential in the distribution of female status is very significant. There are almost twice as many women in the lower status in the rural areas as compared to the proportion in the urban areas; there are half as many women in medium status in rural areas as compared to that in urban areas and five times lower proportion of women in higher status in rural as compared to urban areas. Notwithstanding all this it can be stated that the proportion of women in higher status in urban areas vis-a-vis the other groups is also significantly small.

FEMALE STATUS AND FERTILITY

Changes in educational structure, employment and marital patterns are of great demographic importance, particularly in countries experiencing high rates of fertility. Education and literacy affects fertility indirectly through delayed age at marriage, reduction in the desired family size, increased opportunities for personal advancement, awareness of social mobility and freedom from close familial ties leading to greater chances of female employment outside the home and greater exposure to knowledge and favourable attitudes towards limiting family size.

Female employment is likely to affect fertility negatively for females in higher level occupations; for those in lower level occupations and those working in informal sector and inside homes, the relationship is not quite clear as working for cash (inside home or outside) does not necessarily change their status and does not allow greater participation in familial decisions.

In traditional societies like Pakistan characterised by low female status there is less investment in education, there exists limited opportunities for employment, low female labour force participation and limited opportunities of personal advancement. These factors are concomitant of early female marriage relative to males, resulting in an early start of child-bearing eventually resulting in high fertility.

Table 2 gives the distribution of female status by the number of living children using the PDHS (1990-91) data.

Table 2
Female Status by Fertility

Female Status	No. of Living Children			
	00-03	04-07	09-11	12-14
Low	2264 (34.3%)	1846 (28%)	413 (6.3%)	14 (0.24%)
Medium	1053 (16%)	791 (12%)	114 (1.7%)	6 (0.09%)
High	70 (1.1%)	38 (.58%)	0 (0%)	0 (0%)

Table 2 indicates that 34 percent women in lower status have less than four children; 28 percent women have 4-7 children whereas 6 percent women have eight or more children. In the medium status, 16 percent women have less than four children; 12 percent women have 4-7 children whereas 2 percent women have eight or more children. In the higher status, 1 percent women have less than four children whereas 1 percent women have 4-7 children.

FEMALE STATUS AND SEX PREFERENCE FOR NEXT CHILD

An uplift in the status of females is likely to increase their economic and social independence leading to a lesser reliance on a male child for economic and social support.

Table 3 gives the distribution of sex preference for next child by female status.

Table 3 indicates that 51 percent women of all status do not want more children. In lower status, for 12 percent women sex of the next child does not matter; 1 percent women prefer girls whereas 13 percent women prefer boys. In medium status, for 15 percent women sex of the next child does not matter; 4 percent women prefer girls whereas 3 percent women prefer boys. In higher status,

for 1 percent women sex of the next child does not matter; and less than 1 percent women only prefer girls.

Table 3
Sex Preference for Next Child by Female Status

Female Status	Sex Preference for Next Child			
	Doesn't Matter	Girl	Boy	Do not Want or More Children
Low	806 (12.2%)	92 (1.4%)	838 (12.7%)	2797 (42.3%)
Medium	1016 (15.4%)	229 (3.5%)	171 (2.9%)	556 (8.4%)
High	59 (0.89%)	22 (0.33%)	3 (0.05)	22 (0.33%)

FEMALE STATUS AND CURRENT CONTRACEPTIVE USE

Earlier research studies indicate that a greater proportion of working women tend to use contraception than non-working women. Non-working women tend to desire more children as compared to working women. The use of contraception may be lower among women who work in their own homes as childbearing and rearing may not interfere with their motherhood roles as compared to women who work outside. Women with higher education who marry late may also avoid contraceptive use to accomplish the desired family size. Use of contraception however, depends on a host of social, psychological, biological and cultural factors. Most women who do not want to have more children may not be users of contraceptives for one children.

An uplift in the status of females is however, likely to increase contraceptive use.

Table 4 indicates that 65 percent women in the lower status category do not

Table 4
Female Status by Current Contraceptive Use

Female Status	Current Contraceptive Use	
	No	Yes
Low	4284 (65%)	248 (3.8%)
Medium	1640 (25%)	332 (15%)
High	80 (1.2%)	27 (0.41%)

currently use contraceptives whereas 4 percent women are current users. In the medium status, 25 percent women are current users and 5 percent are non-users. In the higher status, only 1 percent women are users.

Bivariate Analysis of Female Status and Fertility Variables

The regression results of female status on number of living children, sex preference for next child and current contraceptive use are presented in Table 5.

Table 5
Regression Results of Female Status on Fertility Variables

Dependent Variable	No. of Living Children		
	B	T-Statistic	Adj R-Square
Lower	-.42	-1.4	.00
Medium	-.264	-.949	.00
Higher	-.46	-.78	.003
All	-.42	-5.5	.004
Dependent Variable	Sex Preference for Next Child		
	B	T-Statistic	Adj R-Square
Lower	-.12	1.23	.00
Medium	-.09	-1.04	.00
Higher	.37	1.56	.02
All	.0008	.037	.00
Dependent Variable	Current Contraceptive Use		
	B	T-Statistic	Adj R-Square
Lower	.107	6.9	.01
Medium	.115	5.11	.02
Higher	.177	1.83	.03
All	.151	18.35	.05
Dependent Variable	Living Children at First Contraceptive Use		
	B	T-Statistic	Adj R-Square
Lower	-6.74	-2.25	.01
Medium	-2.23	-1.32	.00
Higher	-.067	-.495	.01
All	-1.63	-3.18	.01

The results indicate that female status influence the number of living children negatively. This result holds for each group of females as well as for all groups. It means that an uplift in the status of females will lead to a decline in fertility. The R^2 does not indicate a good fit for every case. The regression coefficient is significant for all case but not for individual groups.

The results show that female status and sex preference for a next child are positively related in all cases except for medium status females. A positive relationship between the two variables means that as the status of females increase their preference for a male child declines and the sex of the next child matters less. This result has intuitive appeal but the negative sign of the coefficient for the medium group gives an ambivalent result and calls for an explanation.

The positive relationship between female status and sex preference for next child for lower status women can be attributed to a fatalistic attitude towards fertility. For these women sex of the next child does not matter because it is tantamount to saying "it is upto God, whatever He gives."

Another explanation could be that among the lower status females, the issue of inheritance and ownership of land and property may not be relevant so they do not have son preference and may prefer girls as they provide helping hands to domestic chores and at the same time girls also start working for cash/non-cash income at a younger age.

The negative sign for medium status females is indicative of son preference which does not reflect a strange phenomenon. This can be attributed to the issue of inheritance of land and property in the agrarian structure of our society, dowry system and old age security. R^2 in all cases does not indicate a good fit. The coefficients are not significant at the 95 percent level of confidence for any case.

The results indicate a positive relationship between female status and current contraceptive use for all cases. It means that an uplift in the status of females leads to an increase in the current use of contraceptives. The coefficients are statistically significant in all cases but the R^2 does not indicate a good fit.

The results indicate a negative relationship between female status and living children at first contraceptive use for all cases. It means that as the status of females enhances they are likely to go on contraception earlier at lower parity. The coefficients are significant for lower status groups and for all cases only. The R^2 does not indicate a good fit for all cases.

Bivariate Analysis Results of Female Status and Decision-making Variables

Table 6 gives the regression results of female status on decision-making variables.

Table 6
*Regression Results of Female Status
 on Decision-making Variables*

Dependent Variable	Frequency of Couples Discussion about Family Planning		
	B	T-Statistic	Adj R-square
Lower	-.292	-4.63	.01
Medium	.31	-4.71	.01
Higher	.155	.892	.01
All	-.231	-13.87	.03

Dependent Variable	Whether Couples Discuss about Family Size		
	B	T-Statistic	Adj R-square
Lower	.423	8.29	.02
Medium	.329	5.82	.02
Higher	-.092	-.648	.01
All	.317	23.09	.08

The above results indicate a negative relationship between female status and the frequency of couples discussion about family planning for all cases except for the higher status group. It means that only among the higher status females the frequency of couples discussion about family planning increases with an increase in their status. For all other groups, an uplift in their status does not lead to an increase in the frequency of couples' discussion about family planning. This result may be attributed to a host of factors including the fatalistic attitude of couples, dominance of husbands' will, lack of knowledge of family planning, fear of side-effects and religious factors to some extent that constrain couples from discussing and using family planning. It is only with a higher level of awareness due to higher education and high opportunity cost of women's time due to better employment opportunities that are likely to be relevant to higher status females that the positive relationship emerges.

The coefficients are significant in all cases but not for the higher status group. The R^2 does not indicate a good fit in all cases.

The results indicate a positive relationship between female status and whether couples discuss about family size for all cases except for the higher status group. It means that an increase in the status of females leads to couples discussing family size for all groups except for higher status females. The negative sign in the case of higher status females may be attributed to their independence in determining family size partially and also the fact that the husbands of higher status females are more likely to be supportive of smaller families and couples may have a similar

attitude towards this issue. The coefficients are significant in all cases except for the higher status group.

The above two results put together give an interesting result for lower and medium groups that although an uplift in the status of lower and medium group women leads to couples discussing family size it does not lead to an increase in the frequency of couples discussing about family planning. This result has been found in earlier surveys also that although couples, and particularly women, do not want to have more children yet they do not talk about family planning and do not want to use family planning for one of the reasons indicated earlier.

CONCLUSIONS

The findings of the paper indicate that female status is not the only variable in explaining the variation in the fertility and decision variables under consideration. Future research needs to include other variables that can better explain the variations in the dependent variables.

We can however, summarise the findings of the present study as follows: An improvement in the status of females is more likely to lead to:

- (i) A decline in fertility;
- (ii) increase in contraceptive use; and
- (iii) adoption of contraception at lower parity.

The results indicate lower son preference for lower and higher status women but higher son preference for medium status females. The results indicate that an increase in the status of females does lead to an increase in a couples' discussion about family size but it does not necessarily lead to an increase in the frequency of a couples' discussion about family planning for lower and medium status women. In case of higher status women, women appear to be taking independent decisions about family size as the couples discussion about family size lowers in this case due to an increase in status but the frequency of a couples' discussion about family planning increases due to increase in status.

In the light of the above findings and present analysis it can be strongly suggested that the status and position of women need to be strengthened through wider opportunities for education, paid employment and other opportunities for self-development in order to increase their participation in socio-economic development. This will lead to diversification of their roles into other productive channels leading to an ultimate decline in fertility. It is almost impossible to visualise any impact on fertility without an uplift in the status of women.

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Comments on
"An Attempt to Measure Female Status in Pakistan
and its Impact on Reproductive Behaviour"

My comments on the paper will cover two major aspects of the analysis – one deals with the methodological aspects and the other with the interpretations and conclusions drawn from this analysis. First of all, I would like to appreciate the author's work in attempting to measure the relative status of women in terms of low, medium and high and then relate it to their reproductive behaviour. However, I think that the way in which female status has been measured raises serious questions about the conceptualisation and utility of this variable.

As described in the paper, female status is measured by cumulating the total scores on seven indicators including women's education, their work status, occupation, their husband's education and occupation, exposure to media and mobility and then categorising women in three level of low, medium and high status. First, it is not clear from the paper at all that what method, criteria or weights were used to cumulate scores on each indicator, and what thresholds were used to differentiate women in low, medium or high status categories. I do feel that the three categories formed are arbitrary and share many limitations. It is possible that a woman with no or low score on education or work status may have a high score on husband's education or his occupation. Similarly, the variable 'mobility' used as one of the indicators of status is not explained at all whether it is economic, social or physical mobility and how it would reflect a women's status.

Second, the author might be aware of the fact that the status of women is a composite of many quantitative and qualitative variables than of only a few conventional indicators used in the study, which are likely to affect the reproductive behaviour of women directly and through other indirect paths. It is more meaningful when status is determined and studied in the socio-cultural context of the society. Factors like decision-making power of women, their life pattern and their role inside and outside the home are some of the important variables determining their status or position in the household. Although the author has touched upon this aspect of female status in the theoretical background, it has been missed out completely in the measurement of the variable. She herself acknowledges the unsuitability and shortcomings of the PDHS data for the study of women status, yet has based her analysis on those very data which give rise to many questions on the findings of the study.

Coming to the analysis of the data, I will make a few observations. Using female status as an independent variable, the author has done regression analysis

taking several factors of reproductive behaviour as dependent variables. Then bivariate regression coefficients for female status and each dependent variable are reported in separate tables. Looking at the tables, I fail to understand that if female status is a three category variable—indicating low, medium and high, then how it has been used as a continuous variable, giving only one coefficient for each dependent variable. Would it not be more meaningful to take one status category as the reference and compare it with the other two to get the magnitude of the effect on each dependent variable—otherwise there is no point in disaggregating women into three different statuses.

Second, the tables do not indicate what type of regression was used to study the relationships. As we may note, most of the dependent variables such as contraceptive use in Table 7, preference of the sex for the next child in Table 5, and couple's discussion and decision about family planning in Tables 9 and 10 are either dichotomous or a three category variables. If the author has used OLS regressions to estimate coefficients, then the method used may have led to erroneous results as it is not appropriate to use OLS regression for a binary and three category variables. The logit and the multinomial logits are the preferred and appropriate methods to estimate the parameters. We also notice that in most of the tables, the author reports that the R^2 is very low and the independent variable (which is women status) explains less than 1 percent of variation in the dependent variable and hence does not indicate a good fit. This may be due to the wrong method used to estimate the coefficients.

Regarding the interpretations of the results, the author has either described the percentage distributions of the sample for each variable by women status which I think is self-explanatory from each table or has given only the statistical interpretation of the coefficients in terms of their significance with no substantive discussion on the results in the context in which status of women is being studied. The interpretations of results in Tables 5 and 6 again need clarification. These results in no way indicate that women in the higher strata prefer sons and in the lower strata sex preference for next child is not important. The negative coefficients obtained in Table 6 have no meaning if the sex of the next child is not specified as one vs zero in the equation. Also, if the coefficients are not significant for urban and rural women, its significance for the total sample is not relevant since the total is the average of the two subsamples and the significance arises only because of an increase in the total N. Such problems are apparent in other tables also which need correction.

Last of all, many conclusion drawn at the end of the paper are not wholly based on the analysis done but appear to be the author's speculations and observations about women's low status and the factors associated with such situation.

If my comments have sounded too critical, I would not hasten to add that I fully endorse the need for addressing the questions posed by the author in this

paper. However, I would emphasise the importance of using a better and clearer methodology of measuring female status and getting a more substantive evidence by using more appropriate data set to study the relationship between female status and their reproductive behaviour.

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