

Time-invarying Covariates of Successive Births in Pakistan

Abstract

Pakistan's fertility remains high, standing at 4.8 children per woman despite an official family planning program since 1965. Studies have shown that fertility could remain high in modernizing societies such as Pakistan due to unchanging or slowly changing values regarding children, high infant and child mortality and higher preference for male children among others. In such instances the desired family sizes remains high and use of modern contraception low. Many demographers have found that women generally have high fertility desires and ideal family size remains in excess of three children in Pakistan. It is also observed that many women having three or more daughters alive want to have more children in the hope of having a son. This behavior brings our attention to the fact that fertility decline is unlikely to occur in Pakistan unless there is a shift in family size desires. Therefore, using 2001 data on "*Micro Impact of Macro Adjustment Policies in Pakistan*", this paper explores the likelihood of progression towards higher parities, especially third, fourth and fifth parity, by different attributes of women. The results generally confirm the hypothesized relationships with female education, son preference and survival status of children emerging as important determinants of progression to higher parities. These findings are discussed within the context of policy implications and options regarding fertility reduction.

1: Introduction

High fertility, about 5 children per woman, remains a challenging task for policy planners and the researchers in Pakistan. A gradual downward shift in overall fertility levels was observed during the past decade. However, the targeted levels of low fertility are still far from being realized. Scholars have identified numerous factors that could be responsible for this high level of fertility. Among these factors, low level of women's education and early age at first marriage are the most prominent. Research has also focused on the role of son preferences, infant and child mortality and the desire for large families as possible explanatory factors. One neglected area of research that could help inform policy on fertility regulation is the driving force behind desire for large families. Consequently, this paper attempts to capture the likelihood of progression from first to the higher, fifth, parity with different attributes, such as age at first marriage, educational attainment, employment status, type and province of residence, and ethnic belonging of women. This study will also incorporate the behavioral factors such as women's autonomy, sex of previous children and survival status of children.

Desire to limit family size is considered by many scholars (such as Knodel and Etienne 1985; Birdsall and Chester (1987); Pritchett 1994; and Caldwell and Caldwell 1997) as a prerequisite for fertility decline. Couple's stated family size preferences or ideal number of children influences demand and motivation for fertility limitation and use of contraception (Birdsall and Chester 1987 and Mahmood and Ringheim 1997). Therefore, in a country like Pakistan where the ideal is four children with the combination of two

sons and two daughters for the most of the couples (PFFPS¹ 1996-97), it is unlikely that this country will achieve low fertility targets in near future.

Increase in women's age at first marriage could help reduce fertility since the age at marriage significantly affects the timing of the first birth (Heckman Hotz and Walker 1985). Additionally, the age at marriage determines the length of exposure to childbearing; women who marry young are exposed to longer childbearing as compared to those who marry later (Sathar and Casterline 1998). This is why, age at first marriage is considered a very important proxy variable in most of the fertility models (Davis and Blake 1956; Hobcraft and Little 1984; and Westoff 1992). In the case of Pakistan, Sathar and Casterline (1998) argue that nuptiality change appears to have preceded the onset of marital fertility decline in Pakistan. Thus, increase in age at first marriage has a potential to influence decline in fertility levels (Choudhary et al. 1976).

Women's education is the most influential socioeconomic determinant of fertility. Many scholars (such as: Hindin 2000; Susheela and Casterline 1985; Curtin 1982; Kaplan 1994; Hadi 2001; Mahmood and Ringheim 1997; Cleland and Wilson 1987) have demonstrated that there is a negative relationship between fertility and education. This is because, education delays marriage age of women, increases the opportunities for paid employment, and enables women to be increasingly aware of alternative choices outside the home (Curtin 1982). Furthermore, women's education raises their perception regarding copulation, childbearing and the right to use contraception (Hindin 2000). Education also supports the process of socialization and modifies the reproductive

¹ Pakistan Fertility and Family Planning Survey, 1996-97.

perceptions about fewer number of children, acceptability of family planning program and knowledge of pregnancy related health problems (Hadi 2001). Mahmood and Ringheim (1997) characterize Pakistan with extremely low level of female education and literacy. Low female education in Pakistan could, therefore, be behind the high levels of fertility. Consequently, increased women level of education could lead to a greater level of reproductive rights with a higher level of equity within the family.

Although a direct relationship between women's employment and fertility is ambiguous and unclear (Shah and Smith 1981; Brazzell 1984; and Susheela and Casterline 1985), and female employment could have an indirect effect on fertility (Brazzell 1984). Women's employment may result in increase in age at first marriage and use of contraceptives (Brazzell 1984). The women's involvement in productive activities may also reduce the gender-gap and modify their views regarding sexuality and the sexual relationship with their spouse (Hadi 2000). Thus, women's employment is likely to alter the nature of the relationship between husband and wives and, as a consequence, women may exercise more control over their fertility decisions (United Nations 1985). Although female labour participation in Pakistan has increased over the years, it still remains low and women have a restricted role in public life (Mahmood and Ringheim 1997).

In addition to the socio-economic factors, decline in infant and child mortality also play a major role in lowering fertility (Cleland 1987; Chesnais 1992; Freedman 1995; Caldwell and Caldwell 1997). The increase in child survival has been found to be a motivating factor in reduction of fertility (Abeykoon 2000) and leads to increase in demand for

contraceptives (McDonald 2000). However, despite declines in infant and child mortality in Pakistan over time, the levels are still high (Sathar 1993) that may be an obstacle for fertility decline.

Strong preference for one sex, especially for sons, also affects fertility preferences and likelihood of limitations on adaptation of fertility regulation measures (Sathar and Casterline 1997) and it becomes the most vital factor in the presence of high infant and child mortality risks. Because, a strong preference for one sex of children restrains the fertility decline (Nag 1991). High incidences of infant and child mortality and the combination of undesired sex of children make couples to exceed desired family sizes as they want to have the ideal number of surviving children with the desired mix of sexes (Sathar 1993). Thus, a stress for the change in the desired family size and gender preference is required to bring a fertility decline (Bairagi and Datta 2001). In Pakistan, Rukanuddin (1982), Kazi and Sathar (1986) and Ali (1989) have found a strong preference for sons.

Provincial population distribution can be viewed as a proxy of ethnicity in Pakistan as provincial distribution, more or less, represents the different ethnic group based on the languages spoken. It is noteworthy because culture influences the course of reproduction independently of socioeconomic factors and family planning programs (Wong and Ng Meng 1985 and Freedman 1995). Ethnicity sometimes even is of greater importance compared with the effect of other factors such as wife's or husband's education and household income (Wong and Ng Meng 1985) influencing reproductive behaviors.

Moreover, people with different ethnic backgrounds may have different ideas regarding fertility related decisions such as age at first marriage, ideal or desired family size, sex preference and birth control methods (Muhammad 1996). Pakistan is comprised of distinct cultures defined by variety of languages spoken throughout the country. These different cultures practice different traditions, hold diverse values regarding fertility and fertility related practices.

Women's status indicators such as gender equity (McDonald (1997: 2000), gender relations (Hindin 2000), discussion of sexual act and cooperation between spouses (Caldwell and Caldwell 1997), communication between spouses (Sathar and Casterline 1998), women's greater decision-making power within the family (Oppenheimer 1997 and Hadi 2001), women's autonomy and power (Mason and Herbert 2000) and freedom of movement (Jejeebhoy and Sathar, 2001) are considered an effective pathway to increase awareness regarding fertility regulation measures. Lack of communication about family planning and family size is considered a vital covariate of desire to have no more children (Mahmood and Ringheim 1997). In most developing societies, women's position in reproductive decision-making has remained very poor (Hadi 2001).

With respect to the family structure and fertility behavior, Pakistan is traditional patriarchal society which separates the spheres of activity for men and women giving power to males over females through control of property and household income (Mahmood and Ringheim 1997). Even the timing of the first birth is not independently decided by the newly married couple, the society especially parents of husband, family or

others in their social network play the decisive role. The traditional role of women secludes them from contact with people other than family members, especially men (Mahmood and Ringheim 1997). In general, women have limited economic decision-making authority and a larger proportion of women are excluded from even the most routine decisions (Jejeebhoy and Sathar 2001: 699). In Pakistan, limited opportunities of paid work for women outside the home also restrict their ability to participate in household decision-making process.

2: Data and Methodology

The Micro Impact of Macro Adjustment Policies 2001 (MIMAP) project based at the Pakistan Institute of Development Economics is designed to facilitate the formulation of policies which combine economic growth objectives with improved income distribution, alleviation of poverty and greater welfare, particularly among the vulnerable groups. Data collection through household surveys is an important mandate of the Institute. This is a national representative survey, which is collected in 2001. The sample covered 4003 households of which 4500 ever-married women aged 15-49 were successfully interviewed. Along with details of socio-economic status, birth histories and health measures of women, some information indicating the women's status are also collected. After data cleaning, however, 3349 women were found with complete information needed for the analysis.

The Cox's *partial likelihood* (PL) method is probably the most popular approach (Yamaguchi 1991: 101) applied for demographic studies of marriage, childbirth, migration, divorce, job mobility and the like. This is a semi-parametric method that ignores the specific survival/ hazard function in parametric models and focuses entirely on the impact of covariates. The re-expressing the hazard

$$\log \left[\frac{\lambda(t | \tilde{X})}{\lambda_{0(t)}} \right] = \beta \tilde{X}$$

function gives the linear model that can be estimated by the partial likelihood method. Censoring is very common in social sciences, especially right-censoring. However, Cox survival analysis handles censoring and it is, therefore, preferred over logistic regression. The timing of event origin, where the risk of being exposed to the event begins, are of critical importance for the Cox model.

In this study, the commencement of sexual intercourse could mark the onset first birth. This is because in Pakistan marriage is universal and birth hardly occurs outside marriage. Therefore, first marriage is the event origin for studying the first birth in this country. The women who have had experienced 1st birth are exposed to risk of 2nd birth and the women who have had 2nd birth are exposed to risk of 3rd birth and so on. Thus, only the married women are selected for the Cox regression model to investigate the relative risk of having 1st, 2nd, 3rd, 4th and 5th birth with different attributes of women.

3: FINDINGS

3.1: Demographic and Socio-economic Factors

3.1.1: Demographic factors

To examine the relative risks of having births, the first demographic variable, cohort of women, is divided into two cohorts; older cohort and younger cohort. The younger cohort consists of those women who were born before 1968 and younger cohort, who born after 1968. It is expected that the older cohort of women are more likely to have greater hazards of having birth as compared to the younger cohort. Data shows that, except for first birth, the relative risks of moving to higher parities are significantly higher for the older cohorts. This indicates that the preference of having many children is changing in Pakistan.

Age at first marriage is considered by demographers as playing a pivotal role in the analysis of fertility. Assuming that the women who marry in their early ages will have the higher risks to proceed for higher parities and vice versa, this variable is included in all the models except the first. This variable is divided into three categories; women who married before 16 years of age, women who married between 15 and 20 years of age and the women who married after 19 years of age. Results of Cox regression show that women who marry in their early ages have significantly higher risks of having 2nd and higher parities as compared to those who marry after age 15 years. Though, the relative risks are significantly lower for both of the categories of women who marry after age 15, the risks are much lower for the women who marry after age 20. For instance, as compared to women who married before age 15, those who married between age 15-20

were 51 percent less likely while those who married after age 20 were 83 percent less likely to have a second birth.

Table 1: Relative Risks of Having 1st, 2nd, 3rd, 4th and 5th Births in Pakistan, 2001.

COVARIATES	Relative Risks of Having 1st, 2nd, 3rd, 4th, and 5th Births				
	1st Birth	2nd Birth	3rd Birth	4th Birth	5th Birth
<u>Demographic</u>					
Birth Cohort					
Younger Cohort	1.000	1.000	1.000	1.000	1.000
Older Cohort	1.027	***1.585	***1.592	***1.567	***1.695
Age at First Marriage					
< 16 Years	-	1.000	1.000	1.000	1.000
16 - 19 Years	-	***0.497	***0.511	***0.625	***0.644
20 or 20 ⁺	-	***0.170	***0.211	***0.273	***0.312
PROVINCE					
Punjab	1.000	1.000	1.000	1.000	1.000
Sindh	***1.225	***1.212	***1.161	1.091	0.985
NWFP	***1.217	***1.179	1.030	1.000	0.948
Baluchistan	0.955	***1.627	***1.498	***1.365	1.109
Type of Residence					
Rual	1.000	1.000	1.000	1.000	1.000
Urban	1.050	*0.929	*1.089	1.065	1.057
<u>Socio-economic</u>					
Education					
No Schooling	1.000	1.000	1.000	1.000	1.000
< 9 years of Schooling	***0.811	0.980	0.947	0.888	1.028
> 8 Years of Schooling	***0.480	***0.748	***0.694	***0.516	***0.527
Work Status					
Not Working	1.000	1.000	1.000	1.000	1.000
Working	**0.910	0.973	*0.908	0.928	***0.850

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Relative Risks of Having 1st, 2nd, 3rd, 4th, and 5th Births

BEHAVIOURAL	1st Birth	2nd Birth	3rd Birth	4th Birth	5th Birth
<u>Sex of Children</u>					
Sex of First Child					
Boy	-	1.037	-	-	-
Girl	-	1.000	-	-	-
Sex of First Two Children					
Both Boys	-	-	1.000	-	-
Both Girls	-	-	1.065	-	-
One Boy, One Girl	-	-	1.000	-	-
Sex of First Three Children					
All Boys	-	-	-	1.095	-
All Girls	-	-	-	***1.268	-
Two Boys, One Girl	-	-	-	1.000	-
One Boy, Two Girls	-	-	-	***1.156	-
Sex of First Four Children					
All Boys	-	-	-	-	0.898
All Girls	-	-	-	-	***1.367
Two Boys, Two Girls	-	-	-	-	1.000
Three Boys, One Girl	-	-	-	-	0.931
Three Girls, One Boy	-	-	-	-	**1.149
<u>Survival Status of Children</u>					
Survival Status of First Child					
Alive	-	1.000	-	-	-
Died	-	***0.697	-	-	-
Survival Status of Second Child					
Alive	-	-	1.000	-	-
Died	-	-	***1.438	-	-
Survival Status of Third Child					
Alive	-	-	-	1.000	-
Died	-	-	-	***1.728	-
Survival Status of Fourth Child					
Alive	-	-	-	-	1.000
Died	-	-	-	-	***1.588

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Relative Risks of Having 1st, 2nd, 3rd, 4th, and 5th Births

	1st Birth	2nd Birth	3rd Birth	4th Birth	5th Birth
WOMEN'S AUTONOMY FACTORS					
Participation in Household Decision-making					
Participate	**0.909	***0.850	***0.864	0.928	***0.843
Do not Participate	1.000	1.000	1.000	1.000	1.000
Family Planning Discussion with Spouse					
Discuss	***0.848	***0.874	***0.793	***0.840	***0.842
Do not Discuss	1.000	1.000	1.000	1.000	1.000
Can Go Out in Need?					
Yes	0.947	0.976	1.007	0.967	**1.128
No	1.000	1.000	1.000	1.000	1.000
Are you Satisfied with Your Life?					
Very Much Satisfied	***1.113	1.024	0.926	0.982	**0.853
To Some Extent	1.075	1.033	0.961	1.026	0.966
Not Satisfied	1.000	1.000	1.000	1.000	1.000

Notes:

- 1) *** Significant at 99% level of confidence
- 2) ** Significant at 95% level of confidence
- 3) * Significant at 90% level of confidence
- 4) Bold figures are the reference categories

Source: MIMAP 2001.

Pakistan is comprised of four provinces; Punjab, Sindh, NWFP, and Baluchistan which are distinctly different from one-another with respect to socio-economic development. Among these four provinces Punjab is a more developed region, and Baluchistan is the least. The rural areas of Sindh province are also underdeveloped while the urban part, Karachi, is the most developed part in this province. The inhabitants of these provinces

speak different languages; they have different cultures and values regarding marriage and children and practice different norms. It is, therefore, expected that the relative risks of having births will also be different. It is expected that Punjabi women are less likely to proceed to higher parities as compared to other counterparts in other three provinces.

Cox regression results show that, generally, the hazards of having births are lower for Punjabi women as compared to women living in other provinces. Baluchistan shows significantly higher risks of having 2nd, 3rd and 4th birth. For instance, the risk of a second birth is 62 percent higher in Baluchistan as compared to Punjabi. Sindhi women and the women who live in NWFP are also more likely to have higher risks for 1st, 2nd, 3rd and 4th birth. Thus, it can be concluded that the Baluchi women are the most likely women who have the highest risk for having 2nd, 3rd, and 4th births. Sindhi women are the women with second highest risk and the women who reside in Punjab have the least relative risk of having 1st birth and progression to higher parities.

The majority of the population (almost 67%) resides in rural areas and urban and rural areas are distinctly different with regards to socio-economic development and available opportunities for education and employment, especially for women. It is, therefore, expected that these two segments of the population will behave differently regarding their fertility. However, the results do not show a clear difference between urban and rural women regarding their fertility behavior. The significant differences are found only for 2nd and 3rd births while for 2nd birth the risks are higher for rural women and for the 3rd

the opposite. Thus, it can be concluded, excluding the affect of other covariates, that living in urban or in rural areas does not make a significant difference.

3.1.2: Socio-economic Factors

As discussed in an earlier section, women's education is negatively associated with fertility. Due to cultural practices and limited educational opportunities for Pakistani girls, a significant proportion of women remain with little or no education. MIMAP 2001 data shows that more than 70% have little or no education, 15.2% have 8 years or less than 8 years of schooling while only 12.1% go to high school and have 9 or more years schooling. The significantly high proportion of women with little or without schooling could help explain why many Pakistani women proceed to higher parities.

It is observed that the women who have no schooling significantly have higher relative risks of having 1st birth as compared to those who have 8 or more years of schooling. The hazards of having first birth are significantly lower for those women who have 8 or more years of schooling. Although the hazards of having 2nd, 3rd, 4th and 5th birth are statistically insignificant for the women with no education and with 8 years or less schooling, they are clearly lower for those women who go school for more years. This suggests that it will require at least 9 years of education for any significant effect to occur in regard to fertility desires. Since the proportion of women with 9 or more years of schooling is very low, raising level of education by providing universal access and opportunities to peruse for the higher education may significantly reduce the level of fertility.

Research on the relationship between employment and fertility is inconclusive; some researchers have found a negative while others have found no relationship between these two variables. In Pakistan, about 80% women did not have any job or did not work and only 20% have some job. It is worthwhile to examine the relationship between occupational categories and the progression to a higher order birth. However, because of very small proportion of women in different occupational categories the analysis is impractical. Thus, this variable is divided into two categories; working, who had some job and not working, without job. Work is considered a time-invariant covariate in this study assuming that once a woman gets a job in Pakistan, it is likely that they may quit or even move from one job to another. On the basis of this assumption, this variable is used as a time-in-varying covariate for the Cox regression.

The results of analysis show that the relative risks of having 1st, 3rd and 5th birth is significantly higher for nonworking women as compared to working women. Although statistically insignificant, the relative risk of having 2nd and 4th births also seems higher for those who are not working. Thus, women's employment seems to have some effect for specific parities, if not for all parities. It is, therefore, hard to make firm conclusions on the differences of risks of having births. However, we can conclude with some confidence that the nonworking women are at higher risk of having births as compared to working women.

3.2: Behavioral Variables: Two covariates, sex of children and survival status of children are included in this study.

3.2.1: Sex of Children: Sex of surviving children has implications for progression to higher parities. In the Pakistani society male children are the preferred sex but having most of male children may also tempt women to have a female child. Thus, each model, except the first, includes the sex of surviving children. For the second model, sex of children is coded as a dummy variable. For the third model, the sex of previous surviving children is coded into three categories; all boys, all girls, and one boy and one girl and so on.

Results of analysis show that it does not matter for the risk of having 2nd birth if the first child was a boy or a girl. The risk is not significantly different. The relative risk of third birth is again insignificant if first two children are boys, girls or one boy and one girl. However, the relative risk of having forth birth is significantly higher for those women whom all three children are girls and who have a combination of 2 boys and one girl. Though, the relative risk is higher for those who have all boys it is insignificant. The relative risk of having 5th birth is significantly higher for those whom all children are girls and for whom most of children are girls. The relative risk is lower, though insignificant, for those who have all boys or three boys and one girl. The results thus, provide justification for acceptance of the hypothesis that, “if someone has more girls among her children she will be more likely to proceed for another baby”.

3.2.2: Survival Status of Children: Child replacement theory asserts that in the incidence of infant and child mortality, couples are more likely to replace the dead child. Thus, if a child dies, parents are more likely to proceed to have another child. Literature also suggests that it is a rational decision. Thus, in the societies where infant and child mortality is high, the fertility will remain high because parents' would like to replace the child who died. Additionally, parents get many children as an insurance against some dying. This study, therefore, includes this variable and examines the effect of child survival on the decisions of having subsequent births. Due to data limitations, however, this study only includes the survival status of the previous child to examine the likelihood for progression to subsequent birth. Thus, survival status of 1st, 2nd, 3rd and 4th child is included to examine the risks of having 2nd, 3rd, 4th and 5th child respectively.

The results of analysis show that women whose child dies have significantly higher risk of proceeding to the next birth as compared to those whose child is alive. This is true in all cases and all levels of parities. Thus, it is very clear from the analysis that survival status of previous children has significant implications for progression to the next parity.

3.3: Women's Autonomy Variables: Four variables; women's involvement in household decisions, family planning discussion between spouses, the permission to go out and overall life satisfaction are included in the analysis.

3.3.1: Involvement in Household Decision-making: This variable is categorized into two categories; the one category is comprised of those women who are involved in most

of the household decisions or if they have some say in their household and household matters. In this category, the decisions such as providing for the family daily needs, education and marriage for children, selling and buying of jewelry and assets, work and employment related issues, dispute and decisions about other household matters are included. The other category consists of those women who have no participation or involvement in the household decisions at all.

The results show that women who participate in decision-making in household matters or have some say in the household, have the significantly lower risks of 1st, 2nd, 3rd and 5th births. For the fourth birth however, the risk is insignificant. It is in accordance with the hypothesis that the ‘involvement of women in household decision-making provide women greater opportunities for their fertility decisions and these women are likely to have lower hazards of proceeding to higher parities’.

3.3.2: Family Planning Discussion: This variable is used separately from the above one as it is different and asked women about family planning discussion between spouses. It is divided into two categories; one consists of those women who have family planning discussion with their husbands and other category consists of those who do not. It is hypothesized that the women who are able to discuss about family planning matters with their husbands’ are less likely to proceed to higher parities and thus have lower relative risks of having the 1st and successive births as compared to those who do not discuss family planning matters with their husbands. It is found that those women who have family planning discussion with their husbands’ have significantly lower risks of having

1st, 2nd, 3rd, 4th and 5th births as compared to those who do not. This indicates that family planning discussion between spouses make them more comfortable to adopt fertility regulation measures.

3.3.3: Permission to go out: Permission of husbands' and / or head of household may also restrict women inside the household boundary and could indirectly impinge on women's autonomy. This type of restriction also keeps women unaware of recent developments in the field of women empowerment and birth control methods. As a result, these factors are likely to have negative impact on access to birth control methods. According to hypothesis, women who are not permitted to go out to fulfill their domestic or personal obligations, including accessing birth control methods, will be less likely to adopt modern birth control methods and therefore will have the higher risk of having pregnancies.

It is found that, for all the models except 5th, women who have permission to go out are less likely to have subsequent births. For the highest parity, it is, however, found that the women who have permission to go out have significantly higher risks of having birth. Thus, our hypothesis seems valid for all other parities, though not for 5th birth.

3.3.4: Life Satisfaction

The inclusion of this variable highlights the satisfaction accrued from having children and helps to understand the position of women in the household. Assuming that a better position in the household yields a satisfactory life and enables women to have a say in the

household, women who are enjoying a satisfactory life are less likely to proceed for higher parities.

The results show that the women who are more satisfied with their life are more likely to have 1st birth and the women who are satisfied with their life are also less likely to proceed to 5th parity. In the Pakistani context it can be argued that every woman wants to have some children. Thus, the women who are living a satisfactory are expected to have higher risks of having children up to a certain number. The findings suggest that hazards of having less number of children are higher for those women who reported a satisfactory life. However, the relative risk to proceed for higher parity is higher for those who do not have a satisfactory life. This indicates that women get pleasure having fewer children.

4: Summary and Discussion

It appears among demographic variables that age at first marriage plays an important role in decisions of having first birth as well as progression to higher parities. Both level of education and employment status of women also appeared to have significant influences on fertility decisions, but the effect of level of education is larger. Sex and survival status of children seems to also have an effect on progression to higher parities. The results have shown that there is strong son preference as evidenced by the progression to higher parities even in families with more than four girls. This is an obstacle that prevents women from limiting their family size and is the driving force behind progression to higher parities. Survival status of children appears to be a key factor that helps to determine progression to higher births. There may be several arguments to favor the

attitude that includes child replacement, old age security and emotional affiliations with the children. Women's autonomy or status variables seem also playing a pivotal role in progression to higher parities. Women who have a say within the household, and have opportunity to discuss family planning with their spouses are less likely to proceed for higher parities.

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