Female Labor Force Participation and Fertility: A Survey Based Study of Southern Punjab, Pakistan

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Abstract
Rapidly increasing population is challenging for almost all the developing countries which triggers the issues like poverty, ill-health, illiteracy, lower living standard and environmental degradation. Female participation in labor force may increase the opportunity cost for bearing and rearing children. This increased opportunity cost for having children may put pressure on families to have less number of children and offer more women time in labor market. This induces the women to allocate more time to work and develops their preferences to have less number of children. However, taking the 400 respondents as sample size, this study was conducted in Multan division, known as area of southern Punjab, Pakistan. Keeping in view the non-negative nature of dependent variable, this study used Negative Binomial Model to find out the relationship between fertility and female labor force participation. The estimates of the model indicates that monthly income of wife, education and use of birth control devices are major factors lessening the fertility rate of females. However, this mechanism for lowering demand for children by family may be helpful in reducing fertility rate (number of children per women) and increasing economic activity and wellbeing by involving more and more women in paid work. In this way, a society can achieve the targets of birth control in an invisible way to impede the pace of undesirable population growth. Finding of proposed research may help population welfare department, Punjab and Pakistan Population council, provincial and federal government in formulating an indirect and invisible population/birth control policies to overcome the burden of over-population.
Keywords: Labor Force, Participation Rate, Opportunity Cost, Child Bearing, Fertility Rate, Birth Control

1. Introduction

Overpopulation is challenge for almost all the developing countries because of their least ability to afford the substantial increase in population subjected to the fever resources available which is considered a major cause of their underdevelopment (Al Kibria et al., 2016; Bhandari et al., 2013; Saleem & Bobak, 2005). Consequently, it tends to cancel out increases in aggregate output, thereby keeping the average income stagnant at low level (Brand & Davis, 2011). Developmental issues like poverty, illiteracy, ill-health, bad living conditions, slow economic growth, gender imbalance and environmental degradation are considered population centered. Being a developing country, Pakistan is also facing these problems (Choe & Retherford, 2009). Pakistan ranked at 5th position among the most populous countries and forecasted to stand at 4th in 2050 (Pakistan Bureau of Statistics, 2020). Since, almost half of the population of the world is consists of women, therefore FLFP is the most important factor in developing the human resources (Bloom et al., 2009; Nussbaum, 2001; Nag & Singhal, 2013). A higher level of FLFP in order to have greater earnings are some of the most significant tools for lessening the poverty and increasing the standard of living, not only the employee itself but also the dependent people (Steinberg & Nakane, 2012).

In comparison with other countries, trends in FLFP is not much satisfactory in Pakistan as only 22 percent of females are engaged in paid work depicting a small ratio (Pakistan Bureau of Statistics, 2018). Several factors are responsible for the minor FLFP including less employment and developmental opportunities available for females, social and cultural barriers, low salaries and intolerant environment (Ghannam, 2005; Pal et al., 2014). Majority of the female population is socially, economically and politically deprived from their legal rights in developing countries. But their efforts to get the just rights are in vain, subjected to discrimination in every walk of life (Rouse, 2011; Greenwood et al., 2005; Wazir, 2013; Sadaquat, 2011). Technological improvements, contracting gender inequality, structural changes, declining fertility are the major factors leads to an increase the participation of females in economic activities (Greenwood et al., 2005). Improving health and living conditions of the female in developing countries and achieving higher life expectancy of overall population are among the sustainable development goals (Elborgh-Woytek et al., 2013; Ma, 2016). Therefore, control of population is imperative in order to achieve these goals. Making the women time more valuable through skills and education is considered as an indirect approach to control fertility (number of children per women), quality of children through better nutrition, education and health may also reduce the quantity of children in the society and household. A number of policies were introduced over the time to contain population to an optimum level using direct birth control measures like use of contraceptive e.g. condoms, pills, injections, IUDs, etc. Awareness to use these contraceptive measures in one difficulty while ensuring the availability of these tools in less developed and remote areas is the other one. These population welfare departments use awareness campaigns through print, electronic and social media. In the presence of high degree of illiteracy, lack of electrification in some rural outskirts, low ratio of

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internet users in total population effectiveness of these media campaigns is limited. Population welfare workers hired by population welfare office also have limited approach to married couples in less developed and tribal areas. Various social and religious groups and religious-political parties mostly oppose these measures. Some of these groups oppose direct policies on religious or cultural grounds while other argue that this is intervention of state owned institutions in private affairs of a family or married couples.

The present study, in this regard, considers relatively less developed southern area of Punjab province and identify which economic factors and measures may work as indirect and invisible measures for birth control and controlling for higher pace of population growth. These proposed economic measures may have least chance of opposition from the society and influential social group due to their invisible and indirect nature. The study also identifies the women-intensive skills and skill gap in these areas, which have low industrial base and wide agricultural share in their domestic economy and livelihood. This identification may help government of Pakistan in preparing the ground of increasing women labor force participation in the economy of Pakistan where it is below the world average. However, it is important to understand the factors that are creating hindrance for the females to get employment and are important to birth control in developing countries. (Kiefer, 1968). Therefore, understanding these factors is important in order to increase the labor force participation among women which will lead to control the rapidly growing population in Pakistan.

2. Data and Methodology
2.1. Data source

This study was conducted in Multan division, known as area of southern Punjab, Pakistan. The study selected 400 respondents as sample size of this study. For this purpose, one district was selected randomly from the districts in Multan division. In further procedure of sampling, two Tehsils from that district was randomly selected. In the next stage, four union councils from each Tehsil was selected for data collection. In the last stage, five villages was selected from each union council while 20 respondents was taken from each village which were also selected randomly. A self-administrated questionnaire was developed for the data collection. Respondents of the questionnaire was included the women of reproductive age (15-60) group from the sample areas of the study. A face to face interview was conducted in order to get the information related to socioeconomic characteristics and fertility behavior. The respondents were questioned in their local language for the ease to understand and get a proper response. Visits in the fields and houses were managed according to availability of the respondents. After the collection of data, the information was compiled for covering all deficiencies and properly managed in the required form in the excel sheet.

3. Methodology

To measure the impact of FLFP on fertility, this study has used a count data method by taking the number of children as dependent variable. Due to the non-negative nature of the dependent variable, the study, in this regard, has used a Poisson process generated by the number of the children given birth by women. Poisson regression is the basic count data method that satisfies a discrete probability distribution and nonnegative numbers. The basic count data model is as follows:

$$\Pr(Y = y) = \frac{\lambda^y}{y_!} e^{-\lambda}$$

Number of children given birth by women y= (1,2,3,......) function by the probability distribution Pr(Y= y), estimate parameter has a function by the λ. This method is used to find the relationship between mean parameter λ and a set of repressor x.

In this study, only those women are included in our sample having any children truncated at one baby during her child bearing age after one year her marriage. Those women are not included in the samples that have not any baby and hence the sample is truncated at zero. The medical literature has defined infertility as the failure to conceive pregnancy after a year of regular intercourse without contraceptive tools. In addition, infertility increases as the woman's age increases (Dunson et al., 2004). Regarding the infertility, the medical literature has not documented the agreement about what other factors have effect on infertility. Some evidences suggest that infertility is subjected to indicators of poor health like sexually transmitted diseases, miscarriages and high body mass index (BMI) (Grodstein et al., 1994). Moreover, the infertility is a random event, female's background characteristics are not associated with heterogeneity in infertility (Joffe & Barnes, 2000). However, in case of misspecification of mean, the results of the study will be biased and in consist for the wrong account of truncation (Shrestha et al., 2002; Zawacki et al., 2000). The equation of zero truncated Poisson for the count y is following.

$$\Pr(Y = y) = \frac{\lambda^y}{y_!} e^{-\lambda} * \frac{1}{1-e^{-\lambda}}$$

If the data has equal dispersion then use the Poisson model, subtracting one from the dependent variable to adjust the endogenous stratification in the above equation (Bin, Landry, Ellis, & Vogelsong, 2005; Hagerty & Moeltner, 2005; Hesseln et al., 2003; Loomis, 2003; Martinez-Espineira et al., 2006). The equation is following dealing both issues endogenous stratification and truncation.

$$\Pr(Y = y) = \frac{\lambda^y}{y-1} e^{-\lambda} * \frac{1}{1-e^{-\lambda}}$$

Finally, in case of equal dispersion (equal mean and variance), the Poisson model may be best fit to the data while in case of the data having not equally dispersion, the Poisson model cannot be used. For instance, in case of over dispersion, the negative binomial method is applicable, presenting a good alternate in solving the problem of over dispersion(Cameron & Trivedi, 1998; Green, 2008; Haab & McConnell, 2002). A number of studies are available using this model to solve the problem of over dispersion (e.g. Curtis, 2002; Englin & , 1995; Martinez-Espineira&Amoako-Tuffour, 2009). Negative binomial model simultaneously solve the issues of the endogenous stratification, over dispersion and the zero truncated. The equation of the negative binomial method for the count y is following.

$$Pr(Y = y | Y > 0) = y \frac{\Gamma(y + \alpha^{-1})}{\Gamma(y + 1)\Gamma(\alpha^{-1})} \alpha^y \lambda^{y-1} (1 + \alpha\lambda)^{-(y+\alpha^{-1})}$$

In this equation α is a additional parameter that can be used to test the likelihood for the hypothesis test of the over dispersion (Martinez-Espineira & Amoako-Tuffour, 2009). To check the suitability of count model, the negative binomial model is estimated which includes the over dispersion parameter α to test whether α is significantly different from zero or not. The hypothesis in this regard become; H_0: α = 0 or H_a≠ 0. We have three cases: when α = 0 (Poisson model will be suitable), α > 0 (over dispersion and negative binomial will be suitable and α < 0 which shows under dispersion (which is very rare). Functional form of the model of the model becomes:

LB = f (Age, Edu, MI, JN, CLHV, BCD, D)

Here, LB represents the number of liver births of ith respondent taken as dependent variable. Age is the age of women, MI is monthly income, JN is job nature of female, CLHV is number of times contact with lady health worker per year, BCD is use of any birth control device, D is the distance from home to maternity hospital of ith respondent. Empirical model is:

$$LB = \beta_0 + \beta_1 Age + \beta_2 Edu + \beta_3 MI + \beta_4 JN + \beta_5 CLHV + \beta_6 BCD + \beta_7 D + \varepsilon$$

Here, Ɛ is the error term.

4. Results and discussion

This section is further sub-divided into the various sections to describe and interpret the results of the study.

4.1. Descriptive statistics of the study

This section of the study discusses the summary statistics of the study. Two types of the variables are taken in the study including discrete dummy and continuous variables.

4.1.1. General information about respondent

Summary statistics of general information about respondent is presented in table 3.1. Regarding the age of the respondents, the results shows that 5 percent of the respondents have age between 15-21 years, 34 percent from 22-28, 24 percent from 29-35, 28 percent from 36-42 and 14 percent from 43-49. Concerning the marital status of the respondents, the results shows that 68 percent women are still living with their husband and enjoying married life, 14 percent are divorced/ separated while 18 percent are widow. Average monthly income of respondent is PKR 8610 while PKR 18650 for husband. On average, women have been working outside the home for 5 years and working almost 5 hours per day. Average years of schooling of the respondents is 5.36 while 8.12 years for husband. The results show that most of the respondents have completed primary school education while their husbands have middle school education. Distance from nearest public transport facility is almost 3 km.

Table: 3.1 General information about respondent

Variable	Mean/ %age	St. deviation
Age (years)		
15-21	5	
22-28	34	
29-35	24	
36-42	28	
43-49	14	
Marital status		
Living with husband	68	
Divorced/separate	14	
Widow	18	
Monthly income of respondent (PKR per month)	8610	3456
Monthly income of husband (PKR per month)	18650	15404
No. of working years	5.3	3.2
No. of working hours per day	4.7	1.76
Respondent's education (no. of schooling years)	5.36	2.3
Education of husband (no. of schooling years)	8.12	2.36
Distance from nearest public transport facility (Km)	3.26	1.46

4.1.2. Information about employment status

Table: 3.2 show the summary statistics of information about employment status. The result shows that 26 percent of the married women are employed. Regarding the nature of job, the results show that 36 percent of the female labor force is employed in agriculture, 9 percent is govt. employ, 10 percent is civil servant and 45 percent are housewives spending whole time in childcare and other activities while adding nothing in household income. Average distance from job location for paid employee is almost 10 km. In context with socially acceptable jobs for women, 56 percent of the respondents respond that teaching, sewing and banking, 21 percent respond designing, beauty parlor and anchoring while 18 respond that nursing, advocation and doctoring are socially acceptable jobs for women. The study also found that 38 percent of the respondents respond teaching, sewing and banking, 21 respond that that designing, beauty parlor and anchoring, 41 percent respond that nursing, advocate and doctoring are the socially acceptable well-paid jobs for women.

Table: 3.2 Information about employment status

Variable	Mean/ %age	St. deviation
Nature of job		
Agriculture	36	
Govt. employee	9	
Civil servant	10	
Housewife	45	
No. of children with respect to job nature		
Agriculture	3.6	
Govt. employee	2.1	
Civil servant	2.2	
Housewife	3.2	
Distance from job location (Km)	10.2	4.3
Socially acceptable jobs for women		
Teaching, sewing/ banking	56	
Designing, beauty parlor/ anchoring	26	
Nurse, advocate/ doctor	18	
Socially acceptable well-paid jobs for women		
Teaching, sewing/ banking	38	
Designing, beauty parlor/ anchoring	21	
Nurse, advocate/ doctor	41	

4.1.3. Information about marital status and fertility

Summary statistics of information about marital status and fertility is shown in table: 3.3. The results show that average of the respondent at the time of marriage was almost 21 years. Average number of live births is almost 3 children per women while 62 percent respondents respond that their all children are survived given live births by them. When they were asked about best number of children to have, 48 percent respond up to 2 children, 24 percent respond up to 4 children, only 1 percent respond up to 6 children while 27 respond that they by self cannot decide and let the GOD to decide it. However, 12 percent of the respondents respond that child bearing is the most important thing that a women can do. When they were asked about to desire more children in case of 5 daughters and no son, 58 percent respond that they would desire to have more children in order to get male children.

Table: 3.3 Summary statistics of information about marital status and fertility

Variable	Mean/ %age	St. deviation
Age at the time of marriage (years)	21.53	3.46
No. of live births per women	3.2	1.1
All survived live births (1 if yes, 0 otherwise)	62	
Best no. of children to have		
Up to 2	48	
Up to 4	24	
Up to 6	1	
Up to God decide	27	
Child bearing the most important thing (1 if yes, 0 otherwise)	12	
Wondering to have more children in case of 5 daughters and no son (1 if yes, 0 otherwise)	58	

4.1.4. Respondent's behavior related to fertility

Table 3.4 shows the summary statistics of respondent's behavior about fertility. The results show that 31 percent of the respondents contact with lady health workers having almost 2 visits per year. On average, 67 percent of the respondents have knowledge about birth control devices while only 26% used it. On average, 92 percent of the respondents have relatives staying at home to help them in housework and childcare while only 8 percent hired a

paid baby sitter. Concerning the conveyance, 92 percent of the respondents have motor bike, 3 percent have car and 5 percent have cycle at their home. Average distance from the nearest maternity hospital is almost 10 km.

Table: 3.4 Summary statistics of respondent's behavior about fertility

Variable	Mean/ %age	St. deviation
Contact with LHV (1 if contact, 0 otherwise)	31	
No. of times contact with LHV (per year)	2.3	0.26
Knowledge of birth control device (1 if yes, 0 otherwise)	37	
Used any birth control device (1 if yes, 0 otherwise)	26	
Relative staying to help in housework/childcare (1 if yes, 0 otherwise)	92	
Paid baby sitter (1 if yes, 0 otherwise)	8	
Conveyance		
Motor bike	92	
Car	3	
Cycle	5	
Distance from nearest maternity hospital (Km)	10.02	5.16

4.2. Factors affecting fertility rate among married women

This study used the count data model to estimate the role of female labor force participation in birth control. The study applied Truncated Negative Binomial, to estimate the coefficients of the model. To check the simultaneous effect of all the variables, significance of Chi-square statistic was observed. The likelihood-ratio test of alpha indicates that it is significant at 1% and thus the Zero Truncated Negative Binomial approach to find out the determinants of fertility rate among married women.

Table: 3.5 Factors affecting the fertility rate in Southern Punjab

Variable	Coefficient	St. Error	Z-statistic
Age			
18-25	0.98***	0.42	2.33
26-33	0.079***	0.032	2.47
33-40	0.083	0.338	0.24
41-48	0.3817	0.3753	1.02
Monthly income of female	-0.0006*	0.00035	-1.75
Education of female	-0.0308***	0.0128	-2.41
Nature of job			
Agriculture	0.079	0.355	0.23
Govt. employee	-0.0336	0.0478	-0.70
Civil servant	-0.179*	0.101	-1.77
Housewife	0.0826**	0.0413	1.54
No. of time contact with LHV	-0.0826**	0.0413	-2.01
Use of birth control device	-0.0053***	0.0014	3.79
Distance from nearest maternity hospital	-0.0082	0.0075	1.09
Shape parameter (α)	-2.385***	0.754	
Log likelihood	-371.59		
χ^2	77.51		
Pseudo R^2	0.094		

Note: *, ** and * represent statistically significant at 10%, 5% and 1% level, respectively.**

Table: 3.5 shows the results of Zero Truncated Negative Binomial providing the determinants of fertility rate in Southern Punjab. Age of the respondents is categories into four groups. The results for age from 18-25 and 26-33 have positive and significant impact on fertility rate of a married woman, implies that in the early years after marriage they desire to have more children. As age increases they don't eager to have newly born baby. The result for age of the respondents is in line with (Tawiah, 1997; Bhandari et al., 2013; Al Kibria et al., 2016; Pal et al., 2014). Monthly income of female has negative and significant effect on fertility rate, implies that as the monthly income increase they desire to have fewer children. The females with more monthly income desire to have less number of children in comparison with females with less monthly income. The reason may be that opportunity cost of child bearing also increase with the increase in income of female. As the income of female increase it makes the time of a female more valuable. Therefore, she has to tradeoff between income and child bearing. The result for monthly income of female is line with (Bhandari et al., 2013; Pal et al., 2014).

Education of female has negative and significant impact on their fertility rate. The females with more education have less number of children in comparison with respondents having less education. In Pakistan, it is tradition that a male household has dominancy in household decision and hence the child bearing decision also. But an

educated women can also decide when and how much children to given birth. As education increases she desire to have fewer children. The result for education of female is in line with (Ghannam, 2005; Kamal, 2009; Nag & Singhal, 2013; Kravdal, 2002; Jain, 1981; Kravdal & Rindfuss, 2008; Brand & Davis, 2011; Goldstein, 1972). Regarding the nature of job, housewife has positive while civil servant has negative and significant impact on fertility rate of women. A housewife has no opportunity cost in case of no paid job, hence let their husband to decide how much and when to have a baby. The result for nature of job is in line with (Sthar & Mason, 1993; Kravdal & Rindfuss, 2008).

No. of time contact with LHV has negative and significant impact on birth control. Frequent contact with lady health workers helps the females to take better decision related to family planning, to undertake the importance of the use of birth control devices. The result for contact with LHV is in line with (Kravdal & Rindfuss, 2008; Ghannam, 2005; Kamal, 2009). Use of birth control device has negative and significant effect on birth control, implies that the respondents who use any type of birth control device have fewer children in comparison with others using no birth control device. The result for use of birth control device is in line with (Kamal, 2009; Nag & Singhal, 2013; Kravdal, 2002; Al Kibria et al., 2016; Pal et al., 2014).

5. Discussion

The present study is an attempt to find out the impact of FLFP to control birth rate in Southern Punjab. For the relationship between FLFP and fertility, the results of the model shows the negative relationship between the both which depends on the degree to which time uses are competitive. The number of children that a woman wished to have is a choice variable subjective to her decision to participate in labor as a fully paid worker. The women has to decide to choose between leisure time as the number of days spend during and after pregnancy in childbearing and looking after her newly born baby or to allocate her time in paid job as the earning hands for her family. If FLFP and fertility are not conflicting uses of time, no relationship will be expected, or a possibility for having positive one.

The data for age-specific groups suggests that relation between FLFP and fertility of women may function differently for the various age sections for female population. Among the two youngest age groups i.e. 18-25 and 26-33, housewives have more fertility rate in comparison with economically active females but insignificant with increase in age. The result also implies that the fertility among those in their early peak ages of childbearing, FLFP is more incompatible among those with maturity ages.

However, being paid employee is an important instrument for making women's time more valuable, make married as well as unmarried females less dependent on their families while make them free from the suppressing influence of male-controlled ideologies in any society. Moreover, only 19% of married women are doing fully paid jobs while a major part is housewives (45%) contributes nothing in household income and one third population of married women engaged in agriculture sector majority of them is unpaid workers. In addition, the fertility level of govt. employee and civil servant is almost same (average no. of children 2), lower than the women working in agriculture sector with no paid job and housewives (3 no. of children on average). The women engaged in the formal economy are highly educated having husbands with handsome salary packages and higher occupations, have fewer children, majority of them live in the urban areas, are less suppressed by their families and have less traditional gender disparities in household decisions. However, the gender wage differentials occur among the paid employee. The ILO report 2019 highlighted this phenomenon one of the biggest social injustice in developing countries. The report revealed that in all countries, gender wage disparity is a matter of concern and also highlighted that women, on average, earn 20% less than men globally. In Pakistan, gender wage gap was found to be 34% lower than men, which implies that wage differential is double in comparison with global average. In addition, the report also revealed that women account for almost 90% of the bottom 1% of wage earners. Looking at the present situation, the present study implies that there exist a potential scope to decrease the fertility rate of female by lessening the gender wage gap and raising the wage rate for female workers.

Regarding the education of female, it has major contribution in birth control as shown from estimated results presented in table 3.5. Economic difficulties and male dominant system typically reinforce one another and lead their families to drop them from school among poor families. A significant number of these poor young girls get married in early ages and have their first baby in very young ages, which diminishes their participation in labor market considerably. However, education as an instrument to improved skills, empower the decision-making of female, higher aspirations, increased alternatives and higher status give the women more independence in their decision of life, also to decide the number of children among married females. A majority of educated women desire to have up to 2 children (48%), shows trend of fertility rate among highly educated paid job females. We also observed that the education of husband also indicates the same trends.

After the independence of Pakistan, the population of Pakistan increased with tremendously high rate. Many factors contributed this sharp increase in population but major one was less use of conceptive tools and other birth control devices. The study in this regard, found out that only 29% married women have contact with lady health worker while only 25 percent used any type of birth control device. Regarding the contact with LHV and use of contraceptive tools, the present study has estimated the negative impact on fertility rate among married women.

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The study also find out that 61 percent female has contact with LHV with average of almost 2 visits per year while 67 percent use any type of birth control device.

In addition, the literature has a significant gap in explaining those factors that determine the fertility rate among married women in developing countries. Hence, to control the population, it is important to have the better understanding of the factors driving the decision of a family related to number children and to make the time of married female more valuable among the households in low income countries.

6.   Conclusion

In developing countries, females are under-represented in the paid jobs. Being an under-developed country, the phenomenon is not much different in Pakistan. However, these labor force differentials are not because of the gender disparities, in fact can be attributed to the reality that female have to perform their responsibilities related to bearing and look after the child. The present study is an attempt to estimate the role of FLFP as birth control by analyzing the variation in marital status and fertility, background characteristics and employment status in Southern Punjab, Pakistan. Regarding the control of population, a lot of efforts have been taken at local, national level and worldwide in order to lessen the population rate. But most of the policies focused on direct measures and opposed by religious scholars.

The result of the study makes clear that FLFP in Southern Punjab is very low. Almost less than two-thirds of married women aged 18 to 49 are employed out of which more than half are employed in agriculture sector and other are employed in govt. sector and civil servant. The analyses show that women's own educational level is major factor affecting FLFP and fertility rate. The chances of being a housewife decline with each year increase in schooling lead to increase the women's engagement in fully paid jobs. Being employed in an upper non-manual job, the women should have completed secondary education. The females with secondary educational level are engaged in govt. employment (9%) shows a small portion of the population. However, the majority of the female population less than primary education leads them to accept manual work as we observed from the table 3.2 that almost one-third of the married females are engaged in agriculture sector.

Education level of women as well as husband's education plays an important role to derive family's decision related to fertility but the direction of husband's educational level is different from their own educational level. In case of higher educational attainment by husband, chances for married women as a housewife become higher rather than lower. Also, when the spouse has primary or lower educational level leads to increase the chances for a women to have a fully paid job. This implies that at least part of the employed women in Pakistan work out of necessity. In case of less requirement of additional income with the reason that husband has more human capital, the FLFP become optional for them, either because they are not allowed to work by their families or sometimes because of their own choices. The additional finding that the present study reveals that husband's educational level has effect on the woman's chances of being engaged in an upper non-manual jobs, illustrate that husband's human capital is not much of a help for the careers of highly educated Pakistani women. Moreover, when the females were asked about the socially acceptable well-paid jobs 38% respond teaching, sewing/ banking, 21% designing, beauty parlor/ anchoring while 41% nursing, advocate/ doctor. These are the socially desirable jobs for women.

From global perspective, Pakistan is clearly on the low end of the population planning efforts. Although 60% of Pakistani female either wished to have no more children or desire to have interval in their next birth but only 20% have contact to family planning services (National Institute of Population Studies, 1992). Generally, an easy and quicker access can be expected to increase in the use of contraceptive tools. The present study found out a significant and negative effect of contact with LHV and use of any birth control device on birth control. However, 31 percent female have contact with LHV but only 26 percent females use any type of birth control device. The shortage of family planning service outlets is especially severe in the rural areas of Pakistan, where the great majority of the population lives.

The assessment of women's fertility behavior will be helpful for the population practitioners in order to understand the population trends in Southern Punjab. The study also shows that well educated women have high opportunity cost that is helpful in order to limits the family size, so the present study give the directions to improve the education system especially the areas with high fertility rate. The government should take some immediate actions to educate the female in high rate fertility areas in order to reduce the population rate. However, age, monthly income, education of female, job nature, number of time contact with LHV and use of birth control device are the significant factors affecting the number of children in Southern Punjab. This implies that these factors are important to determine the number of children per women. Thus, the importance must be given to these factors while establishing and implementing population policy on priority basis. Overall, having good understanding of socio-economic characteristics of the respondents, their employment status, marital status and fertility behavior and behavior related to birth control by the policy makers and research institutes can helpful to develop the policies in order to control population in Pakistan.

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