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Factors Associated with High Fertility in"Bhakkar Gabool Goth": Case Study

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Abstract

Pakistan is holding only 0.67 percent of the whole world's area but has 2.63 percent of world population. In 1951 it ranked at 14th position in the world's populous countries. In 2017-18 its population has been increased to 200,813,818 million approximately five times higher. With this high population it reached to 6th most thickly populated country in the world. Human fertility is not a personal decision but it is a mixture of factors, which differ among places, according to specific conditions of particular areas & cultures. The aim of current research is to determine major factors that encourage high child ever born in urban slum area of Karachi" Bhakkar Gabool Goth". Questionnaire was filled up from 100 ever married house hold women through simple sampling method based on socio economic determinants like respondent's age and their husband's income/education level/place of childhood residence, etc. The analysis was descriptive through percentages and number distribution of respondents and later on Chi-square test was used. The average number of kids were greater than 5 and out of 23 variables discussed in questionnaire only 14 variables show significant relation with fertility level which were respondent current age, education status of respondent/ her husband, work status of respondent and her husband, types of work, age at first marriage/first birth, infant/child mortality, contraception, sex preferences and willingness of respondent/ her husband to have more kids. More family health clinics should be established particularly in slum areas, females must have proper education to encourage delayed marriages and contraception use should also be enhanced through media or health visitors.

Keywords: *Fertility, Socio-Economic Determinants, Questionnaire, Random Sample, Chi-square distribution.*

1. Introduction

Pakistan is holding just 0.67 percent of the entire world's zone however has 2.63 percent of total populace. The rise in growth of population of Pakistan depends on two factors which is slow fall of crude birth rate which was 45 per thousand in 1960 to only 27.1 per thousand in 2017-18 and second reason is low mortality rate. Another reason for high population is high fertility rate. This is estimated to be 2.62 children born/woman in 2017. Various reasons account for the slow progress in reducing the fertility rates i.e

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illiteracy, disorganized and uneven allocation of family planning facilities, inclination towards sons and fear of security in old age, etc. High fertility, low mortality and massive rural- urban migration are the main causes of over population in Pakistan. Due to rapid population growth rate Pakistan is the 6th populous country in the world and expected to be 4th by 2050 after China & India (Pakistan Population Assessment Report, 2003)[i]. Knowledge about contraception is high (about 95 percent) but contraception using rate is low (less than 30 percent). Although fertility rate has declined from 7.1 in 1960 to 3.8 in 2012-13 PDHS (Pakistan Demographic and Health survey)[ii], different socio-economic & cultural factors are responsible for high fertility rate & population growth in Pakistan.

Culture of any community and region determines the reproductive behavior of their family size, number of kids, sex preference etc but as far Pakistan is concerned women have less decision power related to family size. Husbands & their families play major role in deciding family size directly or indirectly by approving contraception or by reinforcing social values that prefer sons etc. Fertility rate of poor people are usually high but high fertility rate of women also increases risk of poor health and further put her in poor social and economic status. In 1947 its population was 32.5 million.(at the time of independence), but now its population is 200,813,818 million placing Pakistan at six populous country in the world and second largest Muslim country at current growth rate of population at 2% , one of the utmost in the world among the low economies of the world. This scenario shows a devastating factor for already scarce alarming national resources.

Problem Statement

"Economics and Fertility are closely related" is an axiom. Both Classical and Keynesian accepted this fact. Too many children would take economy to the steady or fixed state, a situation of worn- out of resources or near collapse situation, capital growth would be ceased, values of standard living would be drop"(Adamsmith1976)[iii].

Scope and Objectives of the Study

The aim of current research is to highlight major determinants causing high fertility in "Bhakkar Gabool Goth" an urban poor area of Karachi by field work to detect relevant effective policies for intervention. Accurate investigation of the above mentioned factors will be very helpful for controlling high fertility and would help to improve health status of mothers & their off spring.

2. Literature Review:

(Davis & Blake, 1956)[iv] Elaborated 11 intermediate factors which effect fertility. These 11 factors were grouped into three categories which include age of entrance into sexual relations, stable celibacy, and duration of reproduction time between unions or after unions (i.e.) when divorce, separation or death of husband causes the unions to break, voluntary abstinence, involuntary abstinence, coital frequency, conception variables which include fecundity or infecundity, use and non-use of contraception and fecundity or infecundity by voluntarily reasons (sterilization or health treatment etc.) and gestation factors which includes feotal mortality, from involuntary causes and voluntary causes. Schultz (1969)[v] presented "Determinants of fertility: Microeconomic model of choice" that variations in fertility among people are due to biological and behavioral factors which differ from people to people. Effect of socio economic & cultural factors is not the same among different population. Park (1978)[vi] categorized the fertility factors in 3 groups (i-e) "Demographic, Attitudinal, Social & Economic Residential" but they are interconnected (e.g.) The effects of these factors may vary like educated woman breast feed their children less resulting in high fertility but educated women also get marry late and use contraception which decreases fertility. Education has indirect effect on intermediate factors of fertility (i-e) breast feeding. Bongaarts (1978)[vii] further refined the list of proximate determinants. His work was an advanced over prior models because any data could be easily fitted into his model. Since Bongaart's published his first paper, more than 100 publications based on his framework in different countries & different regional settings have been published. Bongraarts shrinked 11 intermediate variables of fertility given by Davis and Black to only 8 intermediate variables which were "proportion married, contraception, induced abortion, lactationtional infecundability, frequency of intercourse, sterility, duration of fertile period and intrauterine mortality" but according to him the first 4 variables are more important as compare to others so 4 intermediate variables given by him is presented in this equation. The total fertility rate according to Bongaarts model is 15.3 , an average estimate of TF (Total fertility)

$$TFR = TF \times C_m \times C_c \times C_a \times C_i$$

"Cm is index of Non-marriage, Cc in index of contraception, Ca is index of induced abortion and Ci is index of lactational infecundability". Each index value ranges among 0-1, if the value of index is lesser than it will have larger effect on fertility variable. We can calculate each index from data available to see the influence of each index on fertility. Casterline et. al, (1984)[viii] studied the effects on fertility of 3 major proximate determinants of Bongaarts model at cross sectional study of 29 countries (America ,Asia ,Oceana ,Caribbean, & Sub Saharan Africa) i.e Contraceptive , marriage and postpartum infecundability were selected on fertility. In Africa nuptiality, contraceptive & breastfeeding are less effected by urbanity and schooling while breast feeding was

main determinant in Asia and Contraceptive was main determinant in America. Sathar, et. al, (1989)[ix] studied relationship between fertility & employment based on a survey of 1000 ever married women (680 currently working & 320 not working) in Karachi .They found that women working in high status job had almost half fertility to those of women working in odd status occupation. It means there was negative relations between fertility of women in higher status job while positive relation between fertility and lower status job. Caldwell et.al, (1992)[x] claimed contraceptive use to have strong association with fertility they also cite infant mortality and education level as significant variables. Infant mortality is perhaps the best measure of effectiveness of health services in any region or a country and is prime background factor pushing upward pressure on fertility. Cohen (1998)[xi] used Bongaarts proximate determinants frame work to argue that age at first union and contraceptive use is the most dynamic variables in determining fertility. He asserted that proximate determinants are changing very slowly and any recent fertility shifts is largely attributable to changing marriage pattern & increasing contraceptive use. Masood (1998)[xii] tried to explore social & cultural factors accounted for the importance of having children for women in Pakistani society by considering a sample of 196 currently married women from Faisalabad using triangulation strategy. The result showed that children in Pakistani society are seen as source of love, affection, satisfaction and hope for many parents. This lead to conclusion that as long as children remain the main source of security, parents will continue to entertain large family.

Khraif (2001)[xiii] studied fertility levels in Saudi Arabia and examined the effect of important demographic, social and economic variables on fertility behaviors of Saudi women by considering data from demographic survey by utilizing statistical technique and regression and found that age at marriage, women's education, child demise, son preferences and geographic regions are major fertility's determinants. While there is no relationship between female employment & fertility and also woman living in extended family has low fertility. Zafar (2002)[xiv] concluded that traditional settings & traditional point of view about family life, narrow women's autonomy, preferences for male child and lack of knowledge of Islamic teachings and values about large family formations were the vital forces accountable for speedy population growth and extended family size in Pakistan. Al -Riyami et.al, (2003)[xv] studied association between women's education & empowerment with fertility in community based survey in Oman. Face to face interview with 2037 ever married women were taken and fertility rate was dependent variable and women's education, women's empowerment were independent variables and are negatively related to fertility. Mounting education and autonomy of female are the strongest tools of demographic transition. Sharif et. al, (2007)[xvi] conducted research to observe cultural & socio-economic aspects of family size and son preferences among three localities of urban Faisalabad designed by "Federal

Bureau Of Statistics" selecting random sample of 150 females between 15-45 age with one surviving child with the help of open & close ended questionnaires by using descriptive and inferential methods. The result concluded that socio economic characteristics like women's schooling , income of the family and age at marriage had significant effect upon the family size. Adhikar, (2010)[xvii] analyzed 8641 ever married women to observe demographic, socio-economic and cultural factors of fertility in Nepal where birth rates are deceased since 1981. By using DHS data of 2006 he applied bivariate and multivariate regression to see the effect of different independent variables on dependent variable. Among educated women the number of children ever born was almost half as those of uneducated (1.9 and 3.7), rising age at first marriage seem to decease Child Ever Born by 0.15. Muslim women never exposed to media have more children than Hindu women without mass media exposure by 0.066. The poorest women had high child ever born as compare to rich by 0.12 and women with child loss experience had double number of CEB as compare to women with no child loss (= 0.31). Women who are users of contraception had higher CEB than women with no knowledge but women who used family planning had larger number of children than females who never used them so illiteracy, child loss experience and no exposure to mass media had positive and significant effect on CEB. Ushie et.al, (2011)[xviii] examined socio- cultural & economic determinants in fertility differentials between rural & urban areas of "cross river state" of Nigeria by survey design of 880 respondents by focus group discussion & bivariate & multivariate techniques and findings showed that entry age into marriage, contraception and educational status remained main determinants of fertility differential between rural/urban state so proper family planning programmes should be enhanced in rural areas. Kamal et. al, (2011)[xix] found the contributions of various socio-economic, demographic & attitudinal factors to have more than two kids. (Replacement level). They used complementary log-1og regression model and result of multivariate analysis indicated women's age, husband's education, unemployment , son preferences, contraception knowledge & use and child mortality were main cause of large family (more than two kids). Matthew et.al, (2012)[xx] assessed the contribution of selected socio-demographic characteristics on fertility in Nigerian DHS (2008) by generalized linear modeling. Education of women, Wealth Index, Place of Residence was independent variables while fertility was dependent variable. Rural women are likely to give 1.02 more births as compare to urban women. Women with no education or secondary education have 1.36 times more risk and are 17 percent more fertile than higher educated women. Societal factors have great influence on fertility in Nigeria so women's education should be enhanced. Lai et.al, (2014)[xxi] studied socio economic and proximate determinants of fertility in Philippines using 2008 DHS and found that younger age at first marriage and limited utilization of modern contraception were main reasons for the higher fertility among poor about one in the three poor women had unmet family planning need, so women from poorest quintile had almost double

children as those for richest quintile (9.0 versus 2.2) so frequent and unplanned pregnancies are of public health concern in Philippines. Khalique et. al, (2014)[xxii] used both primary & secondary data through structured questionnaire of 250 respondent from Faisalabad city and found education of mother had significant effect on women's fertility .Nasir et. al, (2015)[xxiii] used multiple data sources like 1990, 2006 & 2012 PDHS & Pakistan Resource & Health Survey of 2000-01 (PRH) and Family planning survey .Bongaarts model was used at regional levels of Pakistan and result indicated that marriage index (Cm) & contraceptive index (Cc) were found to be associated with fertility decline in Pakistan, and two provinces Punjab & Baluchistan were ahead in fertility transition as compare to other regions). Kushum et. al, (2016)[xxiv] used national survey data from 1976 to 2011 to find fertility trends, levels & differentials by using decomposition analysis and Bongaarts model of 1978 in Nepal using some socio-economic determinants & found that fertility had a sustained decline from 5.1 per women in 1991 to 2.6 in 2011. This fertility decline is more in urban areas as compare to rural due to contraception use, rising age at marriage, increase in male migration & induced abortion. Singh et.al,(2017)[xxv] studied the determinants of population growth in Rajasthan (India) and concluded that there are many demographic and socio – economic factors responsible for population growth such as mortality rate, crude birth rate, and crude death rate amongst other factors. Nyoni(2018)[xxvi] noted that Pakistan Continues to be a victim of population growth. Employing the Ordinary Least Squares (OLS) the study seeks to uncover the determinants of population growth in Pakistan over the period 1960 – 2017. Diagnostic tests were carried out in order to verify the statistical appropriateness of the estimated model. Amongst other findings, the study revealed that a 1%increase in contraceptive prevalence rate will lead to approximately 3.53% decrease in population growth in Pakistan..

3. Hypothesis

The null hypothesis of the research are as follows:

Ho: There is negative relation between age of mother at marriage time and fertility rate.
Ho: There is negative relation between infant or child mortality & fertility rate.
Ho: There is negative relation between mother and father's education & fertility rate.
Ho: There is negative relation between unemployment of mother/father with fertility.
Ho: There is negative relation between contraceptive use & fertility rate.

Accurate investigation of above mentioned factors will be helpful for controlling high fertility and would help to improve health status of mothers & their off spring in target area as well as similar setting areas. Highlighting, factors causing high fertility in "Bhakkar Gabool Goth" an urban poor area of Karachi will detect relevant effective policies for intervention by the policy makers in said areas and in similar set up.

4. Methodology:

Study Area

The data was collected from urban poor area of Karachi city called "Bhakkar Gabool Goth" in district East, Karachi, Province Sindh. The total population according to local councilor is about 10000-15000 people but registered voters are only 3500 according to union council report (2015). Due to time & cost limitations the questionnaire was filled up from 100 ever married house hold women through simple sampling method. The area consists of approximately 40 acres and it is one of the oldest area of urban Karachi established in 1890 even appeared on British map before partition of Sub-Continent. It consists of densely and low income population and all ethnic groups are present i.e. Punjabi, Sindhi, Balochi, Pathan and Siarki.This area contained some well constructed plus informal housing structure. Employment of the people is mostly in unskilled manual occupation like daily labours, cutting onions for industries who sell it in packets on commercial basis, hand embroidery and cottage industries. The roads are improper and poor sewerage system prevails. Lastly sewerage system was upgraded in 1996 and there is also no water available in area. Poor people buy water from Donkey cart while medium status and rich people buy tankers from water board.. There is only one government primary school in the center of "Bhakkar Gabool Goth" there are also some private schools and has only one family planning clinic. Government hospitals are located in the far off places so people require private and public transport to reach there. There is no government clinic/dispensary or hospital and there is only one private clinic in the whole area. Women from well off families can afford private medication but poor women go to government hospitals located outside area."If contraception using cost is high women will resist despite a desire to avoid pregnancy" discovered by Easterline (1975)[xxvii] and Hermaline (1983)[xxviii] .This area also comprises of large number of immigrants from Punjab, Khyber Pukhtoonkhawa and Balochistan. .Local resident's women are mostly housewives but immigrant females tend to work inside or outside house on paid jobs due to economic necessity[2].

5. Questionnaire:

The information was collected through questionnaire and focus group discussion. Questionnaire consists of 3 parts first part deals with information of socio economic determinants like respondent's and their husband's income/education level/place of childhood residence, women with socio-demographic & economic information & husband's occupation/women's autonomy, further presence of electrical instrument was measured to find economic position of the house hold. Second part deals with marriage

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& health information like age at first marriage / first birth, lactation while third part deals with family planning information .Specific questions were asked on demographic, socio-economic status of house hold, including economic status, schooling, number of sons and daughters, employment status, women's autonomy, contraception use, health concern .

Data was collected in continuous visit to "Bhakkar Gabool Goth" based on simple random sample of 110 ever married women because it was a solo field work and majority of them were illiterate so in person 110 ever married women were interviewed and used to translate question from English to Urdu.

The study initially consisted of simple random sample of 110 ever- married women from 18-49 years age while out of 110 women, 3 women were excluded due to mental illness, can't hear or speak and 7 questionnaires were dropped due to incomplete or ambiguous information. So the final outcome was 100 questionnaire. The data was collected / analyzed / interpreted to have feasible results.

To check the quality of data, 10 percent of sample size of household was selected for pre testing but did not include in actual study population before actual data was collected.

Shortcomings: This study is conducted in poor urban area of Karachi confined to specific community so results can be generalizable to similar seating. Due to cost and time constraints sample was not that much large, there can be biasness in the result or biased estimation of result some of the respondents were not present at the time of my visit so it may also lead to recall bias.

6. Results

Results of the research are given in table 1. A total number of 100 ever-married women were included in the study. Majority of women were married before age 18, illiterate and gave birth to first kid before age 18. Malthus (1798) considered age of women at marriage and frequency of coition during marriage as primitive determinant of fertility,. Mostly women were married within baradaries (same family) and arranged marriage with one or two exceptional cases of love marriage or court marriage, and their spouse were seasonal labours and have no permanent source of income but it did not affect their fertility decision. Usually relationship between work and fertility is not a simple inverse but rather it is ambiguous one, it is generally accepted that relation between work and fertility is not unidirectional Singh and Casterline (1985)[xxix.] Women's were given limited autonomy, usually physically abused by husbands and all of them had TV although necessary electrical appliances like fridge, washing machine were not present but despite exposure to media they are not effected by family planning commercials. Majority spousal gap is at least 5-10 years, their spouse are little educated as compare to them but still illiterate because majority of the husband's education was only primary

or middle. Educated women are more likely to postpone marriage and better communicate about family planning with husbands" discovered by Saleem.A, & G.R Pasha, (2008)[xxx].

Out of 100 random sample 58 were employed outside home mostly as maid servants or in unskilled manual work and 42 were house wives but surprisingly working women have high fertility as compare to house wives due to particulars mind set of economic benefits. Mostly their husbands prefer male but mothers prefer both because male kid is earning asset while female kid will help mothers in domestic work as well as accompany mother in outside work (House maids) and earn more money so female kids play double role i.e. one at house other outside house. "Female's education & urbanization had significant but role of female labour participation seemed to be insignificant in case of Pakistan "by chani et,al (2012)[xxxi].

If look at determinants of high fertility there is no relation of family size with childhood residence, ethnicity, period of lactation, knowledge or use of contraception and work status of husband's respondent.

Some variables like age at first wedding, husband age at first wedding, spousal age gap, education status of women/husband, their desire for male kids and not allowing wives to use contraceptive is the main cause of high fertility, women who give birth to child at an early age i.e before 18 years have more chances of high fertility as to those mothers who bear children after the age of 18. Because their reproductive span is longer as compare to those who get married late or give birth late. If reproductive span is more so it is expected to end up having large number of children. Ayad et al. (2006)[xxxii] found that Morocco's fertility declines are mainly due to rise in women's normal age for marriage and contraceptive use which increases from 19% to 63% between 1980-2004.

Husband & respondent desire to have more kids show strong association with child ever born. Also infant/child mortality is supposed to have positive relation with high fertility. Women & their husband's educational status show positive relation with fertility. Majority of women and their husbands were illiterate so their fertility was high. Most women got education till primary afterwards they got married.

In present research although majority of sample about 95percent have heard of contraception but they don't use it mainly due to husband opposition and fear of side effects. In Pakistan 94% of married women know modern method of contraception but only 17% use them" said by Sathar and Casterline,(1998)[xxxiii].

They take pregnancy normal, still work hard, take simple food and go to female non-technical doctors for check-ups and most of their deliveries are conducted at home by local female non –midwives (dies) and if there is serious case then they go to Government hospitals located out side study area because there is no

hospital/dispensary in the area. They usually breastfeed their kids for more than two years and use less powder milk.

In this study respondents of early age group 18-24 years, those who experienced child or infant mortality, have less or irregular income, illiterate, engage in unskilled manual work were more interested in having more kids to have helping hands as compare to house wives but no relation is found between husbands employment and fertility. Majority of sample had kids above 5 and they want to have more kids until and unless their child bearing naturally stops and those who have less kid's i.e less than 5 were either divorced or widowed or ill like (Diabatic / T.B or Hepatitis). Local resident's women are mostly housewives but immigrant males and females tend to work inside home in cottage industries or outside home as seasonal or maid servants in paid jobs due to economic necessity but their income is not consistent. Most of the immigrants in this area are from Southern Punjab where lot of poverty exists.

7. Discussion

Many factors are responsible for high fertility in study area majority of women have high fertility i.e more than 5 kids so among these factors, age of respondent at first marriage/ first birth, husbands and respondent desire for more kids & education status of respondent and her husband, infant/child mortality were some of the important factors.

The study was conducted with objectives to identify selected socio-economic and demographic factors which directly or indirectly affect fertility in urban poor area of Karachi.. The analysis were based on descriptive analysis through percentages and number distribution of respondents .The average number of kids were greater than 5 and out of 23 variables discussed in questionnaire , only 14 variables show significant relation with fertility level which were respondent current age, education status of respondent/ her husband, work status of respondent and her husband, types of work, age at first marriage/first birth, infant/child mortality, contraception, sex preferences and willingness of respondent/ her husband to have more kids.

Table 1: Selected Socio-Demographic & Economic Characteristics:

Total N = 100	Age of Respondent	Proportion
18-24 Years	20	0.2

25-34 Years	55	0.55
35-44 Years	25	0.25
	Child hood Residence	
Rural	35	0.35
Urban	65	0.65
	Ethnicity	
Punjab	25	0.25
Sindhi	10	0.1
Balochi	5	0.05
Pathan	25	0.25
Sariaki	35	035
	Education Level of respondent	
Illetrate	70	0.7
Primary	10	.1
Middle	10	0.1
Secondary	5	0.05
Above Secondary	5	0.05
	Respondents Occupation	
House Wife	42	0.42
Maid	58	0.58
Self-employed	0	0
Daily labor	0	0
Merchant	0	0
	Husband's occupation	
No work	5	0.05
Self Employed	0	0
Home Servant	30	0.30
Seasonal worker	55	0.55
Expired	10	0.10
	Marriage health information	
	Age at first marriage?	
<18	85	0.85
18+	15	0.15
	Age at first Birth?	

<18	70	0.70
18+	30	0.30
Total No of kids of respondents?		
<5	35	0.35
>5	65	0.65
Willing sex of kids?		
Male	65	0.65
Female	10	0.10
Neutral	25	0.25
Infant child mortality?		
No	70	0.70
Yes	30	0.3
Do you or your husband want more kids?		
Yes	50	0.50
No	35	0.35
Neural	15	0.15
Duration of breast feeding?		
< 2 Years	25	0.25
> 2 Years	75	0.75
Family Planning		
Use of contraceptive?		
Yes	25	0.25
No	75	0.75
Husband's approval of family method?		
No	65	0.65
Yes	35	0.35
Heard of contraception?		
Yes	95	0.95
No	5	0.05

Table 2: Descriptive statistics

Descriptive Statistics				
N	Minimum	Maximum	Mean	Std. Deviation

Husband's monthly income?	100	5000	15000	9145.00	2612.417
What is your monthly income?	100	1000	15000	5300.00	3302.891
What was your expenditure last month?	100	500	20000	7945.00	5117.752
What was your age at marriage?	100	13	20	16.38	2.335
What was your husband age at marriage?	100	13	28	21.94	3.797
How long have you been married now?	100	3	32	14.81	8.692
What was your age at first birth?	100	14	22	18.03	2.528
How many male children did you deliver?	100	0	6	2.02	1.864
How many female children did you deliver?	100	0	5	1.60	1.295
Total number of Kids	100	1	9	3.62	2.453
Did you breastfeed your kids	100	.60	2.50	1.7740	.58683
Did you use powder milk?	100	.00	.00	.0000	.00000
Did you use loose milk?	100	.00	.00	.0000	.00000
Average amount paid for delivery/who paid the amount?	100	600	20000	5010.00	4446.688
Valid N (list wise)	100				

It is clear from descriptive statistics that mean age of mother is 18.03 and mean number of total kids were 3.62 so it shows that when mother age is less number of kids are more therefore it supports our hypothesis.

Hypothesis No 1.

There exist negative relation between age of mother at marriage and fertility. Table 1 shows that we accept null hypothesis based on results because majority of sample 85 percent were married before 18 and 70 percent of them gave birth to kids before the age of 18 so they have more span for reproduction & end up with more kids as their median age for marriage were before 18 which is early as compare to median age set by Government of Pakistan i.e. 21 years. Early age at first wedding and first birth is contributing factor because they are earlier exposed to sexual intercourse which result in too many teenage as well as overall pregnancies. According to Alemayehu et.al. (2010)[xxxiv]"Culture of early marriage has greater likelihood of having a lot of children eventually". Government should impose minimum age law for marriage of both males and females to discourage early marriages. "Children giving birth to children in Pakistan". (Article written in Dawn News on 8 December, 2014 by Murtaza Haider, Director of Regional Economics.com)

Table 3: Chi-Square Tests for negative relation between age of mother at marriage and fertility rate

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	175.510[a]	35	.000

Likelihood Ratio	169.839	35	.000
Linear-by-Linear Association	7.077	1	.008
No of Valid Cases	100		

It can be seen from Chi-square test that probability is highly significant .000 so Ho null hypothesis is accepted that there is negative relation between age of mother at marriage and fertility rate.

Hypothesis No 2.

There is negative relation between infant/ child mortality & fertility. We reject null hypothesis and accept alternative hypothesis supported by table 1 because we observe positive relation between infant/ child mortality and family size. Those 70 percent of women who experience either child/infant mortality expand their size of family as compare to those who never faced infant/ child mortality because they want to avoid risk and replace lost children. Those sample size that face child/infant mortality have more kids between 7-8 more than average number of 5. According to Dust, (2005)[xxxv] "High rate of infant / child mortality motivate couples to have more kids". Reducing infant/child mortality can reduce fertility so it requires government to adopt burly measures such as provision of safe water, increase in maternal education, and provide more vaccination in urban poor areas.

Table 4: Chi-Square Tests for negative relation between infant/child mortality and fertility rate.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.608[a]	7	.059
Likelihood Ratio	18.139	7	.011
Linear-by-Linear Association	1.650	1	.199
No of Valid Cases	100		

It can see from Chi-square test that our probability is significant .05 so Ho null hypothesis is accepted that there is negative relation between infant/child mortality and fertility rate.

Hypothesis No 3.

There exist negative relation between mother's / father's education & fertility. Therefore null hypothesis based on results of table 1 are accepted .Majority of sample 70 percent of respondents and their husbands have low education or illiterate so their fertility were high. Education status of both the respondents displayed negative relationship with fertility. According to Dejene (2000)[xxxvi] and Vilaysook, (2009)[xxxvii] "those educated women have low fertility compared with those uneducated women".

Girls don't get proper education or get less education so Government should promote female education at least in urban poor areas to delay their marriage because education not even reduce uncontrolled fertility but with education women better communicate with their husbands and use family planning more betterly".

Table 5: Chi-Square Tests between fertility rate and respondent education

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	78.313[a]	21	.000
Likelihood Ratio	57.531	21	.000
Linear-by-Linear Association	17.661	1	.000
No of Valid Cases	100		

Table 6: Chi-Square Tests between fertility rate and father education

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	106.465[a]	21	.000
Likelihood Ratio	106.732	21	.000
Linear-by-Linear Association	11.241	1	.001
No of Valid Cases	100		

It can see from Chi-square test for both variables that probability of both variables are highly significant .000 so Ho null hypothesis is accepted that there is negative relation between mother and father's education and fertility rate.

Hypothesis No 4.

There is negative relation between unemployment of mother/father with fertility. we reject null hypothesis and accept alternative hypothesis based on results presented in table 1 .In sample there is no relation found between female work and fertility .Similarly majority of the sample husbands were seasonal employed which were 55 percent i.e. on daily wages and remained mostly unemployed but it does not affect their fertility decision so no relation is found between unemployment of mother and father with fertility level or family size. Women from poorest house hold go out for job due to economic necessity. Fertility is negatively related for women in high status job while for low status job fertility and female labour force participation was positively related found by Sather et.al (1989)[xxxviii]. Shehzad Roy[xxxix] one of the famous singer and human activist of Pakistan has adopted two public schools in Karachi ,once in an interview to magazine he revealed that every year we have demand for admission of 8-10 of brothers & sisters from single house specially from lower income group because for poor people children are investment assets rather than consumption good. The expected return of investment is given by child labour.

Table 7: Chi-Square Tests for relation between fertility rate and unemployment of respondent

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	131.571[a]	14	.000
Likelihood Ratio	84.298	14	.000
Linear-by-Linear Association	.700	1	.403
No of Valid Cases	100		

Table 8: Chi-Square Tests for relation between fertility rate and unemployment of husband

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	107.298[a]	14	.000
Likelihood Ratio	58.411	14	.000
Linear-by-Linear Association	31.920	1	.000
No of Valid Cases	94		

It can see from Chi-square test for both variables that probability of both variables are highly significant .000 so Ho null hypothesis is accepted that there is negative relation between mother and father's unemployment and fertility rate

Hypothesis No 5

There is negative relation between contraceptive use & family size. Our results of table 1 supported null hypothesis and reject alternative hypothesis. Majority of women 75 percent don't use contraceptive so their fertility is still high because in Pakistan most decisions are taken by husband so without husband's approval women can't use contraception. The major cause of not using contraceptive was mainly husbands resistance . "Husband's disapproval has led to a reduction in contraceptive use by 66%' .Bongaarts and Bruce (1995)[xl]."In Pakistan contraception is strongly influenced by socio economic culture" found by Casterline et,al.(2001)[xli] .Government should create more and more family planning clinics in the urban poor areas and should provide more information through lady health workers about contraception that they don't contain any side effects. There is only one family planning clinic in whole area so poor women even due to financial reasons can't afford private clinics this may be one of the cause of not using contraception besides husband resistance and fear of side effects.

Women of young age group ,experiencing infant/child mortality, less or unstable income ,uneducated and less users of contraception and those who work outside are likely to have more kids, revealed by Von et.al in (2016)[xlii.] Number of kids a woman bear is not due to one factor but combination of different factors."

Table 9: Chi-Square Tests between contraceptive use and fertility rate.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	62.121[a]	7	.000
Likelihood Ratio	50.470	7	.000
Linear-by-Linear Association	34.125	1	.000
No of Valid Cases	100		

It can see from Chi-square test that probability of variable are highly significant .000 so Ho null hypothesis is accepted that there is negative relation between contraceptive use and fertility rate

8. Conclusion

In "Bhakkar Gabool Goth" the number of children ever born was extremely high more than 5 kids for majority of the sample and many factors contributed to this high fertility among these factors age at marriage, infant/child mortality, husband desire for more children, high unmet need for contraceptive use and high sex preferences were the main factors. So measures should be taken to reduce infant/child mortality, more and more family health clinics should be established particularly in slum areas, female education should be increased to encourage delayed marriages and contraception use should also be enhanced through media or health visitors.

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