



## FERTILITY DIFFERENTIALS AMONG EDUCATED AND UNEDUCATED FEMALES IN RURAL AREA OF GUJRAT, PAKISTAN

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### Abstract

The study was conducted to know the fertility differentials among educated and uneducated females in rural area of Gujrat, Pakistan. The target population of the study was married females from rural areas of Gujrat who completed at least 6 years of married life and having at least 2 children. The study involved a screening interview in first phase to identify the educated and uneducated married females who completed their 6 years of married life at least have 2 children. Purposive sampling form the non-probability sampling was used to select the respondent with the sample size of 136. Then in the final phase researcher conducted face to face interviews for collecting information from respondents by using questionnaire as data collection tool. Data was analyzed through Statistical package for Social Sciences (SPSS). According to the nature of the data descriptive statistics and chi-square test was used to get more accurate and reliable results. The research recorded slight fertility differentials among less educated and uneducated females but there was remarkably birth interval and notably low birth rate among highly educated females.

### Keywords

Fertility differentials, Birth Patterns, Demographic Research, Married Life, chi-square

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### 1. Introduction

In recent era, the education of female is increasing in all over the world, with this higher level of education; there is also notable changes in fertility behavior. The higher educated female delayed their first pregnancy and also have gap between two births. The trend of appropriate gap between two pregnancies was increased by growing up the educational level of female. (Westoff et al, 1977) In many countries it is proven that women with low or no education have different pattern of fertility as compared to women who are highly educated. Education and age plays an important role at first birth. More educated women wish to reduce their fertility rates so that they can provide proper attention to their child and increase their occupational goals. As a result, they will have large birth space among their children. On the

other hand those who have planned to continue their education may decide to have more children or to pregnant again and again or more quickly to attain family size or for her satisfaction in mother role. This results in shorter birth intervals among their offspring's and this shorter birth interval effect to mother's health as well as to the children. However education is not the only factor affecting the length of birth intervals there are many other different factors affecting the length of birth intervals like race, age at first birth, religion, socio economic factors, region, contraceptive use and planning status. However it is well known that the mother's abilities and education are important for the child's health (Bumpass et al. 1978). Such as females with no or low education have their first child in very younger ages, also have high birth rate, short birth interval between two pregnancies but at the other hand females who have higher education level they delayed their first birth because they mostly delay their marriages due to studies. They also have proper interval between

two pregnancies and have low birth rate as compared to female with no or low education. The phenomenon is also same in Pakistan that mostly the females have opportunities to get enroll in schools these days and this also affects their attitude toward fertility pattern. The higher educated female have less number of child and having proper gap of 2 or more years between each birth. In Pakistan the phenomenon of short birth interval and high birth rate was highlighted issue in past decades. Government started different type of campaigns for providing awareness about long birth interval, appropriate interval between two pregnancies and declining the birth rate, breastfeeding by focusing the education of females in Pakistan. Now the literacy rate of women in Pakistan is relatively high so there was lot of studies who tried to investigate the fertility differentials among educated and uneducated females. Mostly these studies found negative association between education and fertility rate. But there are also some studies where no association was found in fertility pattern and education level of women (Cochrane, S). There were lot of cross studies who found the association between education and fertility pattern, but these studies were conducted within Urban societies or as rural urban comparisons where lot of determinants such as family norms, economical status, geographical differences, available facilities, family differences and vision about careers have their effects on number of child, interval between births/ pregnancies and first birth either than education of female. So its encourage the researcher to investigate the fertility differentials among educated and uneducated female where the population is relatively homogeneous with respect to available facilities, geographical background, economical status, and family or society norms etc. This study is an effort to explain the real phenomenon that whether female education has any impact towards fertility behavior in Rural Gujrat, where the population is relatively homogenous.

### ***Objectives***

- 1) To find the relationship between education and birth interval in rural Gujrat
- 2) To find out the relationship between education and wish of having male baby in rural Gujrat

### **Descriptive and inferential Statistics:**

#### ***Descriptive Statistics***

- 3) To find out the relationship between education and fertility rate of female of rural Gujrat.

### ***Limitation of the study***

The limitation of this study is that researcher didn't consider either the children alive or death. She didn't differentiate the neonatal, fetal or infant mortality. She only ask the respondents who much time they are pregnant and how much kids they have either dead or alive because researcher is interested among the birth interval between two pregnancies either they have short interval or long interval between pregnancies and births. The second limitation of the study is that the study sample is conducted based on non-probability sampling because sampling frame is not available at rural level and researcher also have lack of time and resources to build it herself.

## **2. Methods and Materials**

The target population of the study was married females from rural areas of Gujrat (Dhuhra, Gondal Shareef, Darya, Chak Kamla, Murali, Talka, Kasab, Meru Kot, Pejoki, and Wazeed). Researcher was taken the both educated and uneducated females who completed at least 6 years of married life and having at least 2 children as sample unit for the study with the sample size of 136 sampling unit (respondents). The study involved a screening interview in first phase to identify the educated and uneducated married females who completed their 6 years of married life at least have 2 children. For conducting the survey from these respondents researcher used purposive sampling which is the type of non-probability sampling. This type was selected because there is no proper sampling frame available in rural areas for this study. Survey method was used as technique for data collection. Then in the final phase researcher conducted face to face interviews for collecting information from respondents by using questionnaire as data collection tool. Data was analyzed through Statistical package for Social Sciences (SPSS). According to the nature of the data descriptive statistics and inferential tests were used to get more accurate and reliable results. From inferential statistics researcher use chi-square for nominal data and for ordinal data researcher used Gamma-test to get more reliable results.

**Table 1: Demographic Profile of respondents**

	Category	Frequency	Percentage
<b>Age</b>	20-25	10	7.0
	26-30	36	26.0
	31-35	34	25.0
	36-40	44	33.0
	41-45	7	5.0
	46 & Above	5	4.0
	<b>Total</b>	<b>136</b>	<b>100.0</b>
<b>Education of Female</b>	Illiterate	22	16.0
	Primary	18	13.0
	Above Primary	31	23.0
	Metric	26	19.0
	Intermediate	21	16.0
	Graduate	13	10.0
	Post Graduate & Above	5	3.0
<b>Total</b>	<b>136</b>	<b>100.0</b>	
<b>Age at First Birth</b>	18-20	84	62.0
	21-23	29	21.0
	24-26	20	15.0
	27-32	30	3.0
	<b>Total</b>	<b>136</b>	<b>100.0</b>
<b>Total no. Children</b>	2-3	2	1.5
	4-6	71	52.2
	7-9	48	35.3
	10 & Above	15	11.0
	<b>Total</b>	<b>136</b>	<b>100.0</b>

Table 1 represents the demographic profile of the selected respondents i.e age, no.of children's women have and education of the female. The above table shows that there are majority of respondents are quit young lies between ages of 26 – 40. Very few number of respondents are there present in the study are old age. Table also shows that there are majority of females who have above primary education but there are few females who have graduate or post graduate degree. This data have a view toward rural female's education that mostly they got low or no education at all. This table also represents the age at marriage of the respondent. According to the results findings 84(61.76%) are the respondents who get married at the age group of the 18-20, 29(21.32%) are fall in the category of 21-23, 20(14.71%) are get married in the age group of 24-26, and 30(2.21%) are fall

on the category of 27-32. So it is concluded that the majority of the female of the area get married in early age. The table also shows that mostly females from rural areas having larger number of children irrespective to education. Data shows that mostly females from rural areas having 4 to 9 children.

**Table 2: 2<sup>nd</sup> Pregnancy due to male child wish**

Wish about Male Baby	Frequency	Percentage
Not At All	23	16.9

To Some Extent	48	35.3
To Great Extent	65	47.8
Total	136	100.0

This table is about the 2<sup>nd</sup> pregnancy due to male child wish, according to the findings 65(47.8%) are to great extent, 48(35.3%) are to some extent and only 23(16.9%) are those who did not have

their pregnancies due to the wish of male child. So it is concluded that the majority of females have lot of pregnancies because they having a wish for male child after their first birth.

**Table 3:** Decision about having child

Decision about having child	Frequency	Percentage
Not At All	71	52.0
To Some Extent	39	29.0
To Great Extent	26	19.0
Total	136	100.0

Table 3 explains the female decision about perception of child, according to the study findings 26 (19.1 %) belongs to great extent, 39(28.7%) are to some extent and majority of the respondents

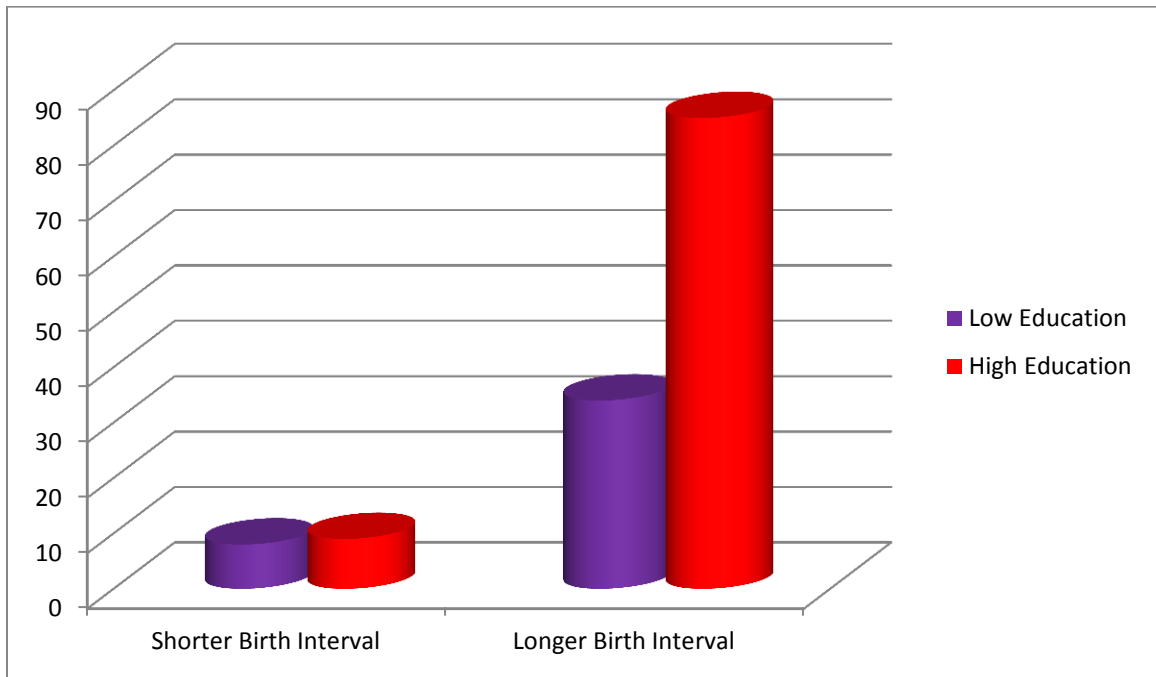
71(52.2%) that have decision making power about having a child or not. So it is concluded that a large amount of the respondents having no decision making power to perceive a child or not.

**Table 4:** Cross Table between Birth Interval and Educational Level of Respondent.

Birth interval	Educational Level of Respondent		Total
	Low	High	
Low	8(19%)	9(9.57%)	17(12.5%)
High	34(81%)	85(90.43)	119(87.5%)
Total	42(100%)	94(100%)	136(100%)

Table 4 shows that the females who have high education also have high birth interval between two pregnancies but the females with no or low education have shorter birth interval as compared

to female who got intermediate or higher level of education. This phenomenon is also presented by graph for comprehensible and effortless illustration.



**Inferential Statistics:**

**Relationship of education and interval between pregnancies**

$H_0$  = Higher the education shorter the birth interval between two pregnancies

Calculation:

$H_1$  = Higher the education longer the birth interval between two pregnancies.

Level of significance:  $\alpha = 0.05$

Statistical test: Chi-square

	Value	Df	Asymp.Sig. (2-Sided)
Pearson Chi-Square	2.382 <sup>a</sup>	1	.128
No. of valid Cases <sup>b</sup>	136		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.25.

b. Computed only for a 2x2 table

Critical Region/conclusion:

The test value has .128 which is greater than  $\alpha$  and not falls in the critical region. So, researcher accepts  $H_0$  that higher educational level leads toward longer birth interval in other words education of female has positive impact on birth interval.

$H_0$  = Higher the education leads toward lower the pregnancies due to wish for male baby

$H_1$  = Higher the education leads toward higher the pregnancies due to wish for male baby

Significance Level  $\alpha = 0.05$

**Relationship of education and pregnancy due to wish for male baby**

Statistical Test Gamma

Calculation:

	Value	Asymp. Std. Error	Approx. T	Approx Sig.
Ordinal by Ordinal (Gamma)	.135	.153	.128	.129
No. of valid Cases	136			

Critical Region:

$$P\text{-value} < 0.05$$

**Conclusion:**

The value is greater than 0.05 so researcher accept  $H_0$  which indicates that higher education leads toward lower the pregnancies due to wish of male baby.

***Relationship of education and fertility rate of female***

$H_0$  = Higher the education of female leads toward lower the total number of births

$H_1$  = Higher the education of female leads toward higher the total number of births

Significance level

$$\alpha = 0.05$$

Statistical Test to be used

Gamma

Calculation:

	Value	Asymp. Std. Error	Approx. T	Approx Sig.
Ordinal by Ordinal (Gamma)	.355	.132	2.528	.11
No. of valid Cases <sup>b</sup>	136			

Critical Region

$$P\text{-value} < 0.05$$

**Conclusion:**

The researcher accepts  $H_0$  because P-value is greater than 0.05 which shows that higher the education of female lower the total number of births.

By applying the descriptive and inferential statistics researcher concludes that majority of females with higher education have longer birth interval between two pregnancies because they engaged in their studies or jobs so mostly they delayed their 2<sup>nd</sup> pregnancy. The other reason is that the female with higher education delayed their marriage due to studies so they also overdue their first birth or pregnancy. Thirdly they have more awareness about mother and child health and suitable duration among two pregnancies. Fourthly as they got higher education so it effects their decision making power about perceiving a child or not so they take their decision about having a child or not. Education also changes the behavior of female toward sex of their children. Educated female didn't bother to perceiving a male child so they saved themselves from lot of pregnancies to have male child which is the most common phenomenon in rural Gujrat where mostly the female with low or no education. The education

also changes the trend of female fertility rate as it shows down shift among educated female whereas fertility rate is higher among uneducated or less educated females.

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