

A STATISTICAL ANALYSIS OF MOTHER'S PREFERENCE ABOUT MADRASSA EDUCATION FOR THEIR DAUGHTERS

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Abstract

Madrassas have consistently and continuously played a vital role in consolidation and shaping the religious theories amongst Muslims. This study attempts to assess the contribution of selected socio-cultural factors on mothers' preference about Madrassa education for their daughters in Faisalabad, Pakistan by using the binary logistic regression of the primary data. For this study, the married women from the rural areas of Faisalabad were selected and the total sample size was 200. Binary Logistic Regression Model was used for the analytical purpose and odds ratio was calculated. It was observed that the mothers' preference about Madrasas education increased to a specific level as the age increased. Whereas, the mothers' preference about Madrassa education was decreased with an increase in the education level. Family type and monthly income remained important factor in the study. The variable 'Relative in Madrassa' also has an important impact on mothers' preference of Madrassa education for their daughters. Parents' preference of Madrassa education over formal education for their daughters does not necessarily imply that they are financially weak.

Keywords: Madrassa Education, Logistic Regression, Hafiz-e-Quran, District Faisalabad.

Introduction

Education is recognized worldwide as one of the basic building blocks of human development and poverty reduction. When given a chance to learn, it makes people develop personally contribute in the development of the societies and countries. Education is still one of the most powerful apparatuses for reducing poverty and injustice and helps lay the foundations for sustainable economic development. Technical intellect, education is the technique by which culture purposely conveys its accrued knowledge, skills and values from one generation to another [1].

Teaching and learning are of energetic prominence in Islam. The very first word of the Holy Qur'an was exposed to the Holy Prophet (Peace Be Upon Him) is 'Iqra' which literally means 'read' in Arabic, and unlike other holy books, nearly half of the Quran tells about nature, space, weather, Geography and Biology. The Holy Prophet (PBUH) asked his followers to gain knowledge even if they have to go to China and during the life of the Prophet (PBUH) war prisoners were released on the condition of educating ten Muslims. The madrassa system of education was founded as early as 10th century AD in Iran, West Africa, and Spain and then spread throughout the Muslim world to provide Islamic education as well as education in science philosophy, public administration, and governance. The Ottoman rulers built mosques near schools but they did not change the primitive school education system and curriculum [2].

The Madrassa was considered a center of higher learning. Traditionally, School Education merged two similar streams of education: knowledge revealed (Manqoolat or Science E-Naqaliya) intellectual and Science (Ma'aqoolat or Science E-Aqalia) [3] The former were known as specialists and scientists whereas the latter were known as fudala and danishmands [4].

The Madrassa structure used to concentrate on not only the education and Quranic studies, but also the classical logic, and literature and it functioned as in the official education system. At the time of independence in 1947, there were about 245 Madrasas in Pakistan [5]. The number of Madrassas has improved since the rule of General Zia-ul-Haq. In April 2002, the Ministry of the Spiritual Affairs assessed the number of schools to be about 10,000, with 1.7 million students [6] The said figure, however, increased to 600,000 to 2 million students collected from different sources [7]. In the social and economic structure of Pakistan, Madrassa can play an optimistic role in shaping the society [8].

In spite of religiosity, it depends on the level of individual faith, but it may strongly develop due to the contribution of many other factors. In the past empirical studies, researchers have identified several factors of religiosity such as globalization, information and communication technology, terrorism and blasphemous incidents. These factors have played an important role in motivating young people about their religion. For example, globalization has made it easy to create networks of Islamic movements all over the world [9]. All major policy reports on the religious schools in Pakistan, with the recognition that only a fraction of the school encourages extremism, and recommending reform of the entire school system, that even ordinary schools produce fanatical individuals [10].

Sinha [11] Conducted a research on educational system and gave an in-depth analysis of the social and economic status of women and presented the factors that affect the educational status of women and superiority towards women working outside the home. There was a major objective to look at the socialization of a Muslim child and see the association between education, employment and social status.

Moulton [12] reported that millions of students in the Muslim world receive some or all of their formal education in madaris. Typically a Madrassa provides young Muslims with a religious foundation in Quranic recitation and Islamic values. For some Muslim children, the Madrassa is the only source of formal education that is available; for others it is supplementary to secular basic education provided in primary and secondary school.

There is a growing tendency among the Muslims today to go to the education of the congregation [13]. So far, social and cultural factors rather than religious ones kept the Muslim girls away from the modern school education. Today in the middle class of the Muslims, the direction of the growth of modern education is on the rise. All this put together accounts for the lack of secular education among Muslims and prosperity of Education School.

Methodology

Methodological techniques and the ways of analyzing of observations are important for sociological pursuits and empirical research. Advancement of Sociological knowledge in the modern age has been possible only due to the use of sophisticated methodological tools and techniques. The population for the present study was rural areas of Faisalabad, Pakistan. A sample of 200 respondents was drawn by using simple random sampling technique. Since the dependent variable of the study was of dichotomous type, so it was preferred to use the logistic regression analysis for estimating the probability of an event occurring.

Wald Test

Wald test is used to test the statistical significance of each coefficient (β) in the model. It follows Chi square distribution and tells us whether the β coefficients for the predictor are significantly different from zero. If the coefficient is significantly different from zero then one can assume that the predictor is making significant contribution to the prediction of the outcome (y). Wald statistic is calculated by dividing the regression coefficient by its standard error [14]. A Wald test calculates a Z statistic, which is given as

$$Z = \left(\frac{\beta}{S.E(\beta)} \right)^2 \quad (1)$$

This z value is then squared, yielding a Wald statistic with a chi-square distribution. To check the performance of Wald statistic [15] and [16] has looked at the adequacy of inferences in logistic regression based on Wald statistic.

Logistic Regression

The logistic regression is defined by the equation given as

$$\theta = \frac{1}{1 + e^{-Z}} \quad (2)$$

In equation (2), $Z = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_i x_i$ where $\beta_0, \beta_1, \beta_2, \dots, \beta_i$ are coefficients and X_1, X_2, \dots, X_i are the regressors.

$$prob(no\ event) = 1 - prob(event)$$

The parameter estimation was based upon maximum likelihood method. Logistic regression coefficients make our results most "likely". The interpretation of logistic regression is different from regression [14]. These coefficients are interpreted in term of odds.

$$\frac{prob(event)}{prob(no\ event)} = e^{\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_i x_i} \quad (3)$$

The odds changes by the factor e^{β_i} when the i th regression is changed. If a positive value of β_i result in e^{β_i} greater than 1 it means odds are increased. Less than one odd are decreased and zero for odds unchanged. It was explained in terms of log of the odds. We write the logistic regression equation in terms of log of odds, called logit.

$$\log \left[\frac{prob(event)}{prob(no\ event)} \right] = e^{\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_i x_i} \quad (4)$$

$$logit[\theta(X)] = \log \left[\frac{\theta(X)}{1 - \theta(X)} \right] = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_i x_i \quad (5)$$

The sign of the log-odds ratio indicates the direction of its relationship '+' sign means a positive relationship between x and the likelihood of a success, where '-' sign means a negative relationship. In order to get an intuitive sense of how much things are changing.

Results and Discussions

The study focused on identifying the factors of mother's preference of Madrassa education for their daughters. The effect of different socio economic, demographic and cultural variables, age of respondent and education of respondent, occupation of respondent's husbands, family type, monthly income, ideal size of children, number of children, number of school-going children. Number of children who are Hafiz-e-Quran and getting formal education, perceptions about profession of daughters in future, any relative of respondent enrolled already in madrassa and final authority to send children to madrassa have been studied.

Statistical analysis of data

The relationship of the variable “mother’s preference of Madrassa education for their daughters” was examined with socioeconomic and cultural variables to understand the mother’s perception about Madrassa education for their daughters in Faisalabad. The response variable was dichotomous with the value of 1 for “Yes” which have to mother’s preference of madrassa education for their daughters and 2 for “No”. From the 200 respondents, 32(16%) mothers’ did not prefer Madrassa education for their daughters and 168(84%) mothers’ preferred Madrassa education for their daughters. The data were analyzed using SPSS-15 and the results were discussed in Table 1.

In the table 1, it was observed that as age increased the mothers’ preference about Madrasas education also increased to a specific level. The age of 34 respondents was 20-30 among them 34 (94.2%) preferred Madrassa education for their daughters and 2 (5.8%) did not prefer Madrassa education for their daughters. There were 86 respondents having age 31-40 of which 70(87.5%) preferred Madrassa education for their daughters and 16 (12.5%) did not prefer Madrassa education for their daughters. The age of 72 respondents was 41-50 among them 60(83.3%) preferred Madrassa education for their daughters and 12(16.6%) did not prefer Madrassa education for their daughters. There were 8 respondents of age 51-60 among them 6 were prefer madrassa education for their daughters and 2 were not prefer madrassa education for their daughters.

Table 1 Association between dependent variable and independent variables

Examined Characteristics		Total	Wish to send Madrassa	
			Yes	No
Respondent Age	20-30	34(100%)	32(94.1%)	2(5.8%)
	31-40	86(100%)	70(87.5%)	16(12.5%)
	41-50	72(100%)	60(83.3%)	12(16.6%)
	51-60	8(100%)	6(75.0%)	2(25.0%)
Respondent education	Matric	50(100%)	34(68.0%)	16(32.0%)
	F.A	34(100%)	30(88.2%)	4(11.8%)
	B.A	26(100%)	22(84.6%)	4(15.4%)
	M.A	12(100 %)	12(100.0%)	0(0.00%)
	Uneducated	70(100 %)	61(87.1%)	9(12.9%)
	Any Other	8(100 %)	7(87.5%)	1(12.5%)
Occupation of respondent’s husband	Private job	56(100 %)	44(78.5%)	12(21.4%)
	Govt. Job	44(100 %)	40(90.9%)	4(9.1%)
	Business	36(100 %)	30(83.3%)	6(16.6%)
	Agriculture	36(100%)	28(77.7%)	8(22.2%)
	Labor	28(100 %)	26(92.9%)	2(7.1%)
Family type	Nuclear	150(100%)	120(80.0%)	30(20.0%)
	Joint	50(100 %)	48(96.0%)	2(4.0%)
Monthly Income	5000-10000	98(100 %)	82(83.6%)	16(16.3%)
	10000-15000	48(100 %)	40(83.3%)	8(16.6%)
	15000-20000	20(100 %)	16(80.0%)	4(20.0%)
	>20000	34(100 %)	30(88.2%)	4(11.7%)
No. of children	1-3	56(100 %)	46(82.1%)	10(17.8%)
	4-6	130(100%)	110(84.6%)	20(15.3%)

	>6	14(100 %)	12(85.7%)	2(14.2%)
No. of school-going children	1-3	124(100%)	104(84%)	20(16%)
	4-6	68(100 %)	58(85.2%)	10(14.7%)
	>6	8(100 %)	6(75.0%)	2(25.0%)
No. of children who are Hafiz-e-Quran	1-3	92(100 %)	76(82.6%)	16(17.3%)
	4-6	10(100 %)	10(100.0%)	0(0.0%)
	Not any	98(100 %)	82(83 %)	16(17 %)
Profession for daughters	Doctor	50(100 %)	40(80.0%)	10(20.0%)
	Engineer	2(100%)	2(100.0%)	0(0.0%)
	Teacher	86(100 %)	72(83.7%)	14(16.2%)
	Relig. Scholar	30(100 %)	30(100.0%)	0(0.0%)
	Govt. officer	4(100%)	4(100.0%)	0(0.0%)
	Not specified	28(100%)	20(71.4%)	8(28.5%)
Any relative in madrassa	Yes	122(100%)	104(85.2%)	18(14.7%)
	No	78(100%)	64(82.1%)	14(17.9%)
Final authority about children education	Mother	56(100%)	46(82.1%)	10(17.8%)
	Father	50(100%)	42(84.0%)	8(16.0%)
	Parents	74(100%)	66(89.9%)	8(10.8%)
	Democratic	20(100%)	14(70.0%)	6(30.0%)
	No	84(100%)	66(78.6%)	18(21.4%)

It was examined from the table that as the education level increased the mother preference about madrasa education was decreased. The respondent with (No education) were 70; among them 61(87.1%) were prefer madrasa education for their daughters and 9(12.9%) were not prefer madrasa education for their daughters. There were 50 respondents with matric education of which 34(68.0%) were prefer madrasa education for their daughters and 16(32.0%) were not prefer madrasa education for their daughters. The total respondents with F.A education were 34 and among those 30 preferred Madrasa education for their daughters. The total respondents with B.A education were 26 and 22 of them preferred Madrasa education for their daughters. The respondents with Higher education were 12 and respondents have preferred Madrasa education for their daughters. The respondents with any other education were 8 among them 7(87.5%) preferred Madrasa education for their daughters and 1(12.5%) did not prefer Madrasa education for their daughters. Similarly, the descriptive studies of other factors such as husband's occupation, family type, monthly income, no. of children, no. of children in school, no. of children Hafiz-e-Quran, profession for daughters, relative in Madrasa and who decided to go to Madrasa are given in detail in the above table.

Table 2 Bivariate logistic regression analysis

	B	S.E	Wald-test	d.f	Sig.	Odd ratio	90% C.I	
							Lower	Upper
Age	0.873	.547	2.544	1	.101	.393	.973	5.886
Respondent education	-0.551	.236	5.477	1	.019	.576	.391	.849

Husband occupation	-0.242	.239	1.029	1	.010	.785	.530	1.163
Family type	-2.416	1.405	2.959	1	.025	.089	.009	.900
Monthly income	-0.520	.338	2.369	1	.001	.295	.341	1.036
No. of children	-1.009	.947	1.135	1	.028	.365	.077	1.731
No. of children in school	0.864	.827	1.093	1	.296	2.373	.609	9.242
No. of Hafiz-e-Quran	-0.361	.692	.272	1	.02	.697	.223	2.177
Profession for daughters	0.094	.237	.159	1	.690	1.099	.744	1.623
Relative in madrassa	-0.957	.776	1.522	1	.017	.384	.107	1.376
Who send to madrassa	-0.073	.323	.051	1	.821	.930	.546	1.582

Table 2 presents the bivariate logistic regression analysis. The 1st insignificant factor was age of respondent. The adjusted odd ratio of respondent age was 0.393 and the confidence interval at 90% level of significance is 0.973-5.886. The odd ratio of respondent age lies outside the confidence interval. The result shows that the respondent age had insignificant effects on mothers' preference of madrassa education for their daughters. Similarly the factors No. of children in school, Profession for daughters and who decided to send to madrassa have no effect on mothers' preference of madrassa education for their daughters.

The 2nd factor was respondent education which was significant. The adjusted odd ratio of respondent education was 0.576 which lie in confidence interval (0.391-0.841). The result shows that respondent education had significant effects on mothers' preference of madrassa education for their daughters. Similarly the factors occupation of respondents' husbands, family type, monthly income, No. of children, No. of children Hafiz-e-Quran and Relative in madrassa are also have significant effect on mothers' preference of madrassa education for their daughters.

Conclusion

Usually Madrassas have played an important role in the education system of Pakistan. It was observed from the study that the age of respondents had significant influence on the mothers' preference about Madrasas education. Highly educated mothers are less interested in sending their daughters for Madrassa education than uneducated ones. Occupation of respondents' husbands, family type, monthly income, no. of children, no. of children Hafiz-e-Quran and having a relative in Madrassa are also have significant influence on mothers' inclination of Madrassa education for their daughters. Family type and monthly income remained important factors. If parents preferred Madrassa education over formal education for their daughters, it does not mean that the parents are financially weak. Any relative of respondent already who is enrolled in Madrassa, had no effect on mother's preference of madrassa education for their daughters. The government should pay attention to Madrasas education and should give the people an awareness of Madrassa education through media to promote it. The Speakers and tutors of Madrassa also play a significant role in making people aware of Madrassa education.

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