

BIRTH ORDER AMONG NORTHERN INDIAN MEDICAL STUDENTS

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Abstract:

Background: Birth order is claimed to be linked with academic achievement. However, many scientists do not accept it. **Objective:** To assess the association of birth order in North Indian medical students with number of attempts to cross the competition bar. **Study design:** Cross sectional study. **Setting and participation:** M.B.B.S. 1st year students of L.L.R.M. Medical College, Meerut. **Statistical analysis used:** Chi Square test. **Methods:** Enquiry of Birth order and number of attempts to crack the medical entrance examination from responded 360 medical students among 494 students admitted during 2005 – 2010. **Results:** The study revealed insignificant relationship between ages of entrance in medical college in both sexes. of 360 students responded 37% students were of first Birth order. Among those admitted in first attempt, 67% students were of first birth order and proportion of success in first attempt reduced with increasing birth order. **Conclusion:** Birth Order strongly influences academic achievements.

Key words: Birth order admission attempts medical entrance academic achievements

Introduction:

Birth order is considered to be linked with academic achievement (1, 2) but some researchers do not accept it (3, 4). Doctors are considered next to God in Indian society. Everybody wants his physician to possess special qualities of ability, responsibility and personality. For long and arduous training required to become a physician strong achievement motivation is needed. It was observed that the need for achievement is higher in the first born than in other ranks (5). The present study is an attempt to know the preponderance of birth order in North Indian Medical students and to find any association between birth order and number of attempts to crack the medical entrance examination.

Material & Methods:

A total of 494 medical students including 255 males and 139 females admitted between 2005 – 2010 in LLRM Medical College, Meerut, UP, were interviewed. Each student was asked about the size of sib ship and number of attempts to crack the competition. The data obtained were analyzed by chi square test to find an association between number of attempts and birth order to crack the entrance competition.

Results:

Table 1 shows the age of entrance in medical college for both sexes. It reveals that 212 (53.8%) medical students who got admission in medical college were above the age of 20 years as compared to 182(46.2%) students who were comparatively younger(<20yr). 56% of the male students got admission above the age of 20 yr as compared to 44% below it, while the proportion in female students was almost 50%. The difference in age in relation to sex at the time of medical school entrance was not found to be statistically significant ($p>0.05$).

Only 360 students gave the data of the number of attempts to clear the competition. Table 2 shows the relation between the birth order and number of attempts. It shows that 37.7% of the first born child in the family got selected in medical college as compared to the youngest children in the family (31.3%). Irrespective of number of attempts, maximum students (33%) got admitted in third attempt followed by second and four or more attempts (27.5% each) and only 11% students got admission in the first attempt. Majority of the students (67.6%) who got selected in first attempt were the first born child in the family as compared to only 12.5% with birth order more than three. These values were reversed with increase in the number of attempts and majority of students (48%) who were admitted in four or more attempts were having the birth order three or more as compared to 22% of first born child. The association between the birth order and sib ship size was found to be statistically significant ($p<0.001$).

Table 1: Age and sex wise distribution of students at the time of entrance in medical college.

Age (yr)	Males		Females		Total	
	No	%	No	%	No	%
<20	111	44.0	71	51.0	182	46.2
>20	144	56.0	68	49.0	212	53.8
Total	255	100.0	139	100.0	394	100.0

$$\chi^2 = 2.086 \text{ df} = 1 \text{ p} > 0.05$$

Table 2: Distribution of students in relation to their birth order and number of attempts .

Birth order	No. of attempts								Total	
	I		II		III		IV+		No	%
	No	%	No	%	No	%	No	%		
I	27	67.5	45	45.5	42	34.7	22	22.0	136	37.8
II	8	20.0	34	34.3	39	32.2	30	30.0	111	30.8
III+	5	12.5	20	20.2	40	33.6	48	48.0	113	31.4
Total	40	11.1	99	27.5	121	33.6	100	27.8	360	100.0

$$\chi^2 = 28.48 \text{ df} = 6 \text{ p} < 0.001$$

Discussion:

Birth order has been shown to have small effect on educational motivation (6). According to another research, mother's age at birth, number of siblings, genetic and environmental influences have more to do with academic achievement than birth order alone (4). The present study shows a greater tendency of admission in medical college for the first born child and it reduces as the size of sib ship increases. It is consistent with the hypothesis that birth order affects achieved status, perhaps via achievement motivation. It appears that the families who send their oldest child to medical profession may have given more attention on the education as compared to subsequent born child particularly if they have many children which are evident from the study with more than two third students admitted in first attempt to be the first born.

In a study, Cobbs&Fench (6) found that occupational aspiration of the sons may be influenced by their father. A father with high level of education will set for himself a high level of aspiration for occupation and if he fails, he may project them on to his first born sons. They observed this in all profession including medical one. However, in the present study, we did not take fathers' educational status, profession and income into consideration. A general conclusion from the study can be drawn that entrance into medical school is strongly influenced by family relationship. Moreover the oldest child might be given more attention by the parents as compared to their younger siblings.

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