CORRELATION BETWEEN LITERACY AND CHILD SEX RATIO IN RAJASTHAN: A GEOGRAPHICAL STUDY ON GENDER DISPARITY

Bhagyashri*

Keywords:

Female literacy;

Child sex ratio;

Women empowerment;

Sex selective abortions;

Traditional attributes.

Abstract

This paper is an attempt to analysis the correlation between female literacy and child sex ratio in Rajasthan. Literacy is one of the most important indicators of social development and female literacy shows a better condition of society. Literacy and education are universally recognized as a major component of human development. As such, certain minimum level of female literacy seems to be essential for a population to a break out the vicious of poverty and women empowerment. The knowledge of literacy and sex ratio is essential for the understanding the condition of women in society. A decline child sex ratio in literate female society is suggestive of the neglect of girl children, sex selective abortions and traditional attributes of the society.

Thus, the analysis of female literacy and child sex ratio is immense significant. This paper revealed that there is negative correlation between female literacy and child sex ratio in Rajasthan. There is no positive development in the child sex ratio while having an increase in female literacy.

* Doctorate Program, University of Rajasthan, Jaipur, Rajasthan, India.

1. Introduction

Literacy means to the ability to read, write and think about the written word. The population commission of united states defines "the ability of both read and write a simple message with understanding in any language a sufficient basis for classifying a person as literate". According to the census of India," a person aged more than 6 years and who can both read and write with understanding in any language is taken as a literate". The census of India defines the literacy rate as a proportion of literates to the total population in the age group 7 years and above. Literacy is considered as one of themost important social aspects of any society's development, especially of rural area and it denotes essentialcriterion of human development [1]. literacy is essential for the economic, cultural, and sustainable growth of a civilization. sex ratio is the ratio of males to females in a population. An important social indicator to measure the extent of prevailing equity between males and females in a society at a given point of time [2].literacy is essential for eradicating poverty and mental isolation for cultivating peaceful and friendlyinternational relations and promoting the free play of demographic processes[3]. This has much to do with the interplay of sex differential in mortality, sex-selective migration, sex ratio at birth and at a time the sex differential in abortion and in population enumeration [2].The sex ratio of a state or country represents the gender imbalance of that region.It is also influencing a society's economic and cultural scenario at the same time it is influenced by the socio-cultural factors.

Rajasthan state is one of the prosperous states of India. It lies between 23˚3' north to 30˚12' northern latitude and 69˚30'east to 78˚17' eastern longitude. it occupies a geographical area of about 3,42,239 sq.km. On the northern side of itPunjab and northern –east of Haryana, Delhi and south of Gujarat and western of Pakistan, Uttar pardesh are on east and south west of Madhya pardesh. According to the 2011 census, the child Sex ratio of Rajasthan recorded 888 females per thousand males which is lowest in national average sex ratio. Rajasthan state has 66.11% literacy rate with a differential of 79.19% male literacy and 52.12% female literacy.

2. Review of Literature:

Neeraj Yadav (2015) observed that there is rather moderate and positive correlation i.e r= [-0.37] Between the literacy and sex ratio in Rajasthan state.Jadhav, Santosh, Ratnaparbha (2014) found

that there were wide disparities in literacy rate and sex ratio of Punedistrict. correlation between literacy and sex ratio found in low degree and positive angle. Sugana (2011) found thateducation of women is the most powerful tool of change of position in society and education brought a reduction ofwomen is the most powerful tool of change of position in society and education brought a reduction inequalities andfunction as a means of improving their status with the family.kumar, Monu(2013) revealed that correlation betweenfemale literacy and child sex ratio (r=-0.46) found in moderate degree and negative correlation. Sule and Barkade(2012) concluded that there were wide disparities in literacy and sex ratio of Solapur district. Correlation between literacyand sex ratio found in moderate degree and positive angle i.e p=0.33. It means high literacy rate and high sex ratio.Singh, Sandeep et. al (2013) revealed that after independence, literacy rate of India is increased but there are widedisparities between male and female literacy rate and sex ratio is decreased from 1901 to 2011.

3. Objective:

The objectives of the paper are as follows:

1.   To trace the sptatial pattern of literacy in Rajasthan at district level.

2.   To examine the spatial pattern of child sex ratio in rajasthan at district level.

3.   To analyse the correlation between literacy and child sex ratio in the study region at district level.

4.Hypothesis:

•   There is no positive co-relation in the literacy rate and sex ratio of the state.

5. Research Method

Present study is based on the secondary sources of data. to fulfill the objectives data regarding literacy and sexratio of Rajasthan is obtained from census of India, Statistical abstract of Rajasthan. The collected data are processedto analyze the spatial pattern of literacy rate and child sex ratio in Rajasthan. QGIS software used for preparing themap and to show the spatial pattern of child sex ratio andliteracy in Rajasthan. The districts of Rajasthan are groupedinto five

categories very high, high, moderate, low, very low on the basis of simple statistical method. The Spearman'srank order method is used for analysis the correlation between literacy and sex ratio.
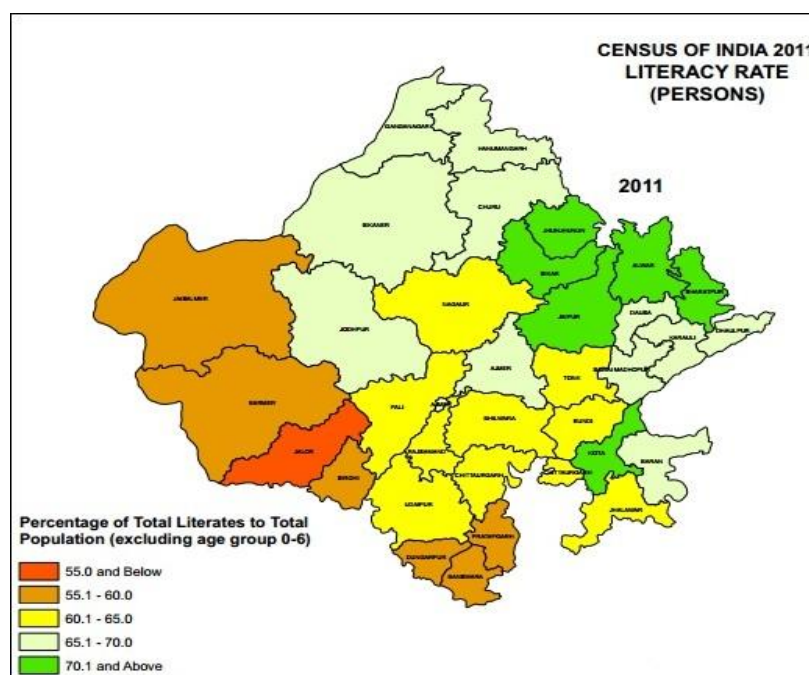
6. Results and Analysis

Literacy, here, means to the persons above 6 years who have a skill of reading writing and understanding of a language. According to govt policies attainment of hundred percent of literacy will lead Less Poverty, Lower Early Mortality Rates of infants, economic growth and inclusive and sustainable development

The spatial pattern of literacy rate:

Rajasthan total literacy rate is 66.11% in 2011, but the district literacy level differs from district to district. Literacy should increase the standard of living, awareness and civilization status of a society the 33 districts according to literacy are divided into below categories:

Very High Literacy Rate[70 and above] - High literacy was recorded in the districts of Kota, Jaipur, Jhunjhunu, Sikar, Alwar, Bharatpur. Due to the high number of educational facilities, high urbanization, development of transport and communication and so on. Here we can see that in Jhunjhunu where Jhunjhunu has a high ratio of literacy rate (74.72) falls in very low child sex ratio (888) category. It is also observed the same in Sikar, Alwar, Bharatpur, and Jaipur as well.

Map 1: Literacy Rate of Rajasthan

Census of india:2011

High Literacy Rate [more than 65 to 70]- literacy rate observed in between 65.1 to 70 in the districts of Ajmer, Dausa, Dhaulpur Karauli, Sawai Madhopur, Ganganagar, Hanumangarh, Baran.
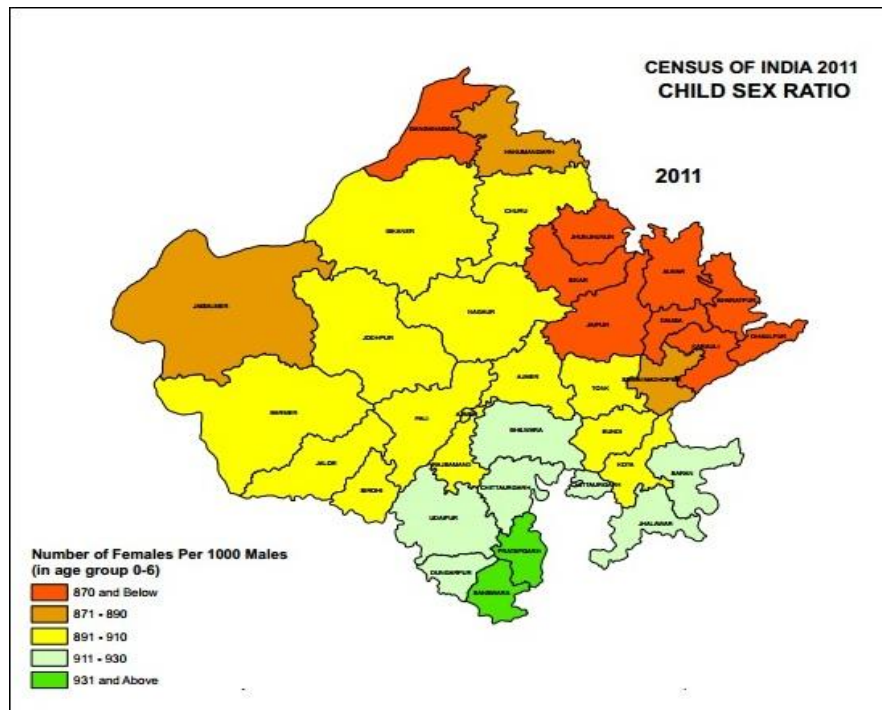
Moderate Literacy Rate (60.1 to 65.0) - Moderate literacy was recorded in the districts of Nagaur, Pali, Rajasamnd, Udaipur, Chittorgarh, Bhilwara, Jhalawar, Bundi, Tonk.

Low Literacy Rate (55.1 to 60.0)- Low literacy was recorded in the districts of Jaisalmer, Barmer, Sirohi, Partapgarh, Banswara, Dungarpur.

Very Low Literacy Rate (less than 55)- Low literacy was recorded in the districts of Jalor whereas Jalor has recorded moderate sex ratio and child sex ratio.

The spatial pattern of child sex ratio:

I.   **High level of Child Sex Ratio (931& above)**: This includes the districts namely Banswara and Pratapgarh due to discrimination against girl child is not strong in the scheduled tribes. These districts have maximum schedule tribe population of the state and the literacy rate is low in these districts, due to that lesser accessibility, less availability of medical facilities and awareness about scanning centers may be the main reasons, which are responsible for high child sex ratio. Literacy rate (children under 6 are excluded) of Banswara is 56%. 69% of male and 43% of the female population are literate here. Overall literacy rate in the district has increased by 11%. Male literacy has gone up by 9% and female literacy rate has gone up by 15%.

Map 2: Spatial pattern of sex ratio and child sex ratio

Census of india,2011

II.   **High Child Sex Ratio**: High child Sex Ratio (911-930) has recorded in the districts of Jhalawar, Baran, Bhilwara, Chittorgarh, Udaipur.

III.   **Moderate Child Sex Ratio:** The districts which have the child sex ratio ranges 891 to 910 are included into moderate category. Moderate sex ratio was recorded in the districts of Churu, Bikaner, Nagaur, Jodhpur, Barmer, Jali, Jalor, Sirohi, Kota, Bundi, Ajmer, Rajsamand, tonk.

IV.   **Low child sex ratio:** The districts which have the child sex ratio ranges 871 to 890 are included into low category. This range is recorded in Jaisalmer, Hanumangarh and Sawai Madhopur district.

V.   **Very low sex ratio:** The districts which have the sex ratio ranges 870 and below are included in a low category. low sex ratio was recorded in the districts of Alwar, Bharatpur, Dhaulpur, Karauli, Jhunjhunu, Sikar, Jaipur, Dausa, Ganganagar.

Correlation In Literacy And Sex Ratio Among Districts:

In this paper, an attempt has been made to calculate the relation between literacy and child sex ratio as well on the district and sub-district level. The calculation of correlation has been done by spearsman rank correlation coefficient.

Spearman's Rank Correlation Coefficient:

The Spearman's Rank Correlation Coefficient is the non-parametric statistical measure used to study the strength of association between the two ranked variables. This method is applied to the ordinal set of numbers, which can be arranged in order, i.e. one after the other so that ranks can be given to each.

In the rank correlation coefficient method, the ranks are given to each individual on the basis of its quality or quantity, such as ranking starts from position 1st and goes till Nth position for the

$$r_s = 1 - \frac{6\sum d^2}{n(n^2 - 1)}$$

one ranked last in the group. The formula to calculate the rank correlation coefficient is:

Where,

R = Rank correlation coefficient

D = Difference of rank between a paired item in two series.

N = Total number of observations.

The value of rank correlation coefficient, R ranges from -1 to +1

If R = +1, then there is complete agreement in the order of the ranks and the ranks are in the same direction.

If R = -1, then there is complete agreement in the order of the ranks and the ranks are in the opposite direction

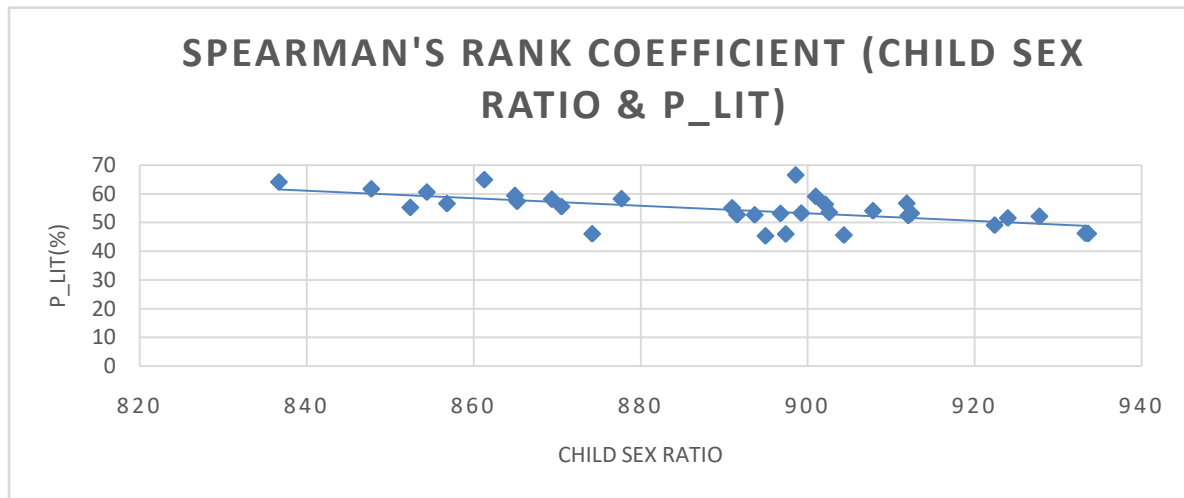If R = 0, then there is no correlation

Table 1: District-wise correlation between literacy and child sex ratio

Sl No.	District	P_LIT (%)	Child Sex Ratio	Rank (X): P_LIT	Rank (Y): CSR	d	d²
1	Ganganagar	60.60	854.39	5	30	-25	625
2	Hanumangarh	58.27	877.71	8	22	-14	196
3	Bikaner	54.10	907.84	17	9	8	64
4	Churu	56.35	902.12	13	12	1	1
5	Jhunjhunun	64.12	836.66	3	33	-30	900
6	Alwar	59.40	864.94	6	27	-21	441
7	Bharatpur	58.11	869.36	9	25	-16	256
8	Dhaulpur	56.62	856.80	12	29	-17	289
9	Karauli	55.26	852.40	15	31	-16	256
10	Sawai Madhopur	55.54	870.52	14	24	-10	100
11	Dausa	57.39	865.20	10	26	-16	256
12	Jaipur	64.91	861.27	2	28	-26	676
13	Sikar	61.71	847.74	4	32	-28	784
14	Nagaur	53.17	896.76	21	17	4	16
15	Jodhpur	55.10	890.96	16	21	-5	25
16	Jaisalmer	46.07	874.20	30	23	7	49
17	Barmer	45.64	904.35	32	10	22	484
18	Jalor	45.36	894.95	33	18	15	225
19	Sirohi	46.01	897.38	31	16	15	225
20	Pali	53.28	899.25	19	14	5	25
21	Ajmer	59.10	900.98	7	13	-6	36
22	Tonk	52.74	891.55	22	20	2	4
23	Bundi	52.66	893.66	23	19	4	16
24	Bhilwara	52.15	927.77	25	3	22	484
25	Rajsamand	53.53	902.59	18	11	7	49
26	Dungarpur	49.09	922.41	27	5	22	484
27	Banswara	46.14	933.62	29	1	28	784
28	Chittaurgarh	53.22	912.41	20	6	14	196
29	Kota	66.55	898.57	1	15	-14	196
30	Baran	56.70	911.88	11	8	3	9
31	Jhalawar	52.43	912.07	24	7	17	289
32	Udaipur	51.58	923.99	26	4	22	484
33	Pratapgarh	46.27	933.29	28	2	26	676
						Σd²	9600
						r$_s$	-0.60428

Source: Census2011

It is assumed that a literate person will support the gender equality,here we see a district-wise

SPEARMAN'S RANK COEFFICIENT (CHILD SEX RATIO & P_LIT)

correlation between literacy and child sex ratio.

The correlation between literacy and child sex ratio is more negative than the literacy and sex ratio correlation the correlation between literacy and sex ratio found negative correlation r= (-0.60428). lowest child sex ratio is recorded in Jhunjhunu (837) while it secures 3rd rank in literacy rate.

The curve clearly states the negative correlation between literacy and child sex ratio.

7. Conclusion

The correltion coefficient shows a wider disparity in literacy rate and child sex ratio. Jhunjhunu falls into the high literacy rate districts, it has 2nd rank in literacy butrecorded lowest sex ratio(836).Pratapgarh secure 2nd rank n child sex ratio while it comes on 28th rank in literacy rate. Same is found in Ganganagar as well, it secures 5th rank in literacy and 30th in child sex ratio.

This shows that the problem is increasing with the time in which we are assuming that the sex ratio will be improved by attaining 100% literacy rate. Literacy has no positive correlation with child sex ratio so, sIt requires stringent action from the state authorities and massmovement to change the mindset and equal order of the patriarchal society.

References

[1]   Dr. T. P. Shinde(2015); *correlation between female literacy and child sex ratio in satara disrtict (maharashtra): a geographical analysis.AIJRHASS 15-826; 2015, AIJRHASS.*

[2]   Majumdar P. k (2013); *Indian demography: changing demographic scenario in India, Rawat publications, Jaipur.*

[3]   Chandana R.C(2008); *Geography of population: concepts, determinants and patterns, Kalyani publishers, New Delhi*

[4]   Census of india, 2011.

[5]   http://www.censusindia.gov.in