

Original Research Article

Gender-Specific Education Status after Covid-19 Pandemic: A Comparative Study between Two Adjacent Subdivisions of West Bengal

Comment [L1]: What's wrong with the Covid pandemic moment? Is this pandemic moment just a "trend"? Or is there really an empirical problem from the pandemic on gender opportunities in the research location? (empirical problem)

Abstract

Education plays a crucial role in the empowerment of women. Nearly half of the world's population is female, and women often face barriers to achieve equal opportunities due to the dominance of masculine ideologies. The objective of this study is to compare the gender-specific education status between two neighboring subdivisions: Barasat-I and Barrackpore-II, in the North 24 Parganas District of West Bengal. Researchers conducted structured interviews randomly within 60 adults to collect data for the study. The study revealed that the Covid-19 pandemic had a significant impact on the education system, particularly affected women's education. Furthermore, it had been observed that Hindu women were more empowered as compared to Muslim women. Another noteworthy finding was that the individuals lived in Kacha houses had exhibited greater empowerment than those lived in Pucca houses. This study underscores the pressing need to address gender inequalities and provide equal opportunities for female education. The lack of awareness regarding women's rights and government schemes for their welfare highlights the necessity for awareness campaigns and educational programs. Furthermore, recognizing the prevalence of child marriage, the government should proactively implement measures to tackle this issue. To empower women and promote education, governments should expand awareness campaigns, implement policies that ensure equal educational opportunities for girls, and work towards eliminating gender disparities for holistic development.

Keywords: Gender, COVID-19, Women, Education

Introduction

Education has been widely recognized as a potent catalyst for societal transformation and the overall development of a nation. It provides individuals some clarity of thoughts and plays a pivotal role in bringing about social change. Numerous studies had shed light on the pervasive discrimination against girl children across various facts of their lives. A preconceived notion is that girls are weaker than boys, but it is due to society's failure to recognize the potential of girls and women. They possess

Comment [L2]: This background section does not explain the empirical problems related to the influence of the Covid 19 pandemic on the education system? even though the title of this article uses the Covid pandemic as research momentum

similar abilities to boys, and if they are provided with equal opportunities, they will undoubtedly contribute to the development of the country. Increasing the female workforce could have a positive impact on economic development. However, the hegemonic masculine ideologies continuously impede women's access to equal opportunities. Education emerges as a powerful tool in the quest for gender equality, empowering women to challenge socially constructed roles. An educated woman could contribute to the best of her abilities, thereby advancing the development of the nation (Singh, 2016).

While there remain a gender gap in literacy rates between men and women in both rural and urban areas, the disparity is less pronounced in urban areas compared to rural regions. Adequate educational opportunities are deemed necessary in the areas requiring improvement to bridge the gender gap in education and eliminate gender inequalities (Das & Hira, 2018). In 2001, the female literacy rate in India stood at 54%, and it had increased to 65.46% by 2011. In contrast, the male literacy rate was 76% in 2001 and elevated to 82.14% in 2011 (Census, 2001 and 2011). The female literacy rate in West Bengal was 59.61% in 2001, while the male literacy rate was 77.02%. By 2011, the female literacy rate had raised up to 70.54%, compared to the male literacy rate of 81.69% (Census, 2001 and 2011). Notably, despite the increase in female literacy between 2001 and 2011, a gender gap persisted in India, West Bengal, as well as North 24 Parganas. Despite the provision of free and compulsory education for all children up to the age of 14 years in India, the gender gap in literacy rates is still present due to the slow progress of girls' education.

Although North 24 Parganas district being ranked third among the 19 districts in West Bengal in terms of literacy rates (according to the India Census, 2011), the study specifically focused on the mentioned district to assess the existing extent of gender disparity to identify socio-economic and cultural factors that imposed constraints on women's education. Women's empowerment is defined as the promotion of their self-worth, their capacity to make independent choices, and their entitlement to influence social change, both for themselves and others. The gender-specific education status between two neighboring subdivisions: Barasat-I and Barrackpore-II, in the North 24 Parganas District of West Bengal.

Methods & Materials

The study aimed to compare the gender-specific education status after the COVID-19 pandemic between two adjacent subdivisions, Barasat-I and Barrackpore-II, in the North 24 Parganas District of West Bengal. This cross-sectional research study focused on two selected blocks, one from each subdivision. One gram panchayat from each block was selected, and for each selected gram panchayat, two villages were chosen randomly. In total, four villages, representing different areas within the blocks, were included in the study. To ensure representation from different socioeconomic backgrounds, a total of 15 respondents were selected randomly from each village, resulting in a

Comment [L3]: use the most recent data, as this is a comparative study. To be accurate, you must quote the latest data developments. at least the last 5 years

Comment [L4]: the reasons for using the cross-sectional method must be explained in more detail. Apart from that, the reasons for the sampling method must also refer to methodological justification

sample size of 60 respondents. Adult respondents who participated willingly were considered eligible samples for the study. A structured interview schedule had been developed to collect the necessary data. The data was collected through personal interviews using a pre-tested structured interview schedule. The schedule had been designed in line with the study objectives, incorporating relevant statements and questions. Ethical considerations were carefully addressed throughout the research process. Informed consent was obtained from all participants, and their privacy and confidentiality were strictly maintained. For the statistical analysis, parametric tests and descriptive analysis were performed based on the variable being studied to determine the objectives.

Comment [L5]: the reasons for determining the sample size have not been explained either

Comment [L6]: Who is used as an informant and the structured interviews conducted must also be explained

Result

The socio-demographic status of the respondents of the selected study area is represented in **Table 1**. According to the results, the majority of respondents in both blocks belonged to the general category, with 66.67% in Barasat-I and 80.0% in Barrackpore-II. Respondents of the SC category were comparatively higher (26.67%) in Barasat-I than in Barrackpore-II (10.0%), while the ST category had a smaller representation only in Barasat-I. Regarding education, the distribution showed that the highest proportion of respondents in both blocks had education up to the secondary level (31.7%). The illiteracy rate was higher in Barasat I (16.7%) than in Barrackpore II (10%), while the graduate and above category was higher in Barrackpore II (20%) as compared to Barasat I (3.30%). In terms of age, the data revealed that the respondents belonging to the age group of 32-41 years were the most prevalent in both blocks, constituting 50.00% in Barasat-I and 40.00% in Barrackpore-II. It could be observed that most of the respondents in both blocks (88.3%) were female. The Hindu population was higher in Barasat-I (63.33%), whereas the Muslim population was higher in Barrackpore-II (76.67%) compared to Barasat-I (36.67%). Nuclear families were more prevalent in both blocks, but the percentage was higher in Barrackpore-II (83.3%) than in Barasat-I (63.3%). Regarding the type of house, pucca houses were more common in both blocks, representing 60.0% in Barasat-I and 80.0% in Barrackpore-II, whereas kacha houses constituted 20.0% in Barasat-I and 13.3% in Barrackpore-II. The total monthly family income distribution showed that the majority of respondents in both blocks fell into the income range of Rs. 5001-10000, representing 50% in Barasat-I and 43.30% in Barrackpore-II. In terms of occupation, the data indicated that the highest percentages of respondents in both blocks were engaged in homemaking, with 40.00% in Barasat-I and 66.70% in Barrackpore-II. Other occupations, such as labor, business, and service, showed varying proportions.

Table 1: Socio-demographic status of the respondents

Variables	Category	Barasat-I	Barrackpore-II	Total
Caste	General	66.67%	80.0%	73.33%
	SC	26.67%	10.0%	18.33%

	ST	3.33%	0.0%	1.67%
	OBC	3.33%	10.0%	6.67%
Education	Illiterate	16.70%	10.00%	13.30%
	Up to Primary	23.30%	10.00%	16.70%
	Up to middle school	13.30%	16.70%	15.00%
	Up to Secondary	33.30%	30.00%	31.70%
	Up to Higher Secondary	10.00%	13.30%	11.70%
	Graduate & above	3.30%	20.00%	11.70%
Age	<21	13.30%	6.70%	10.00%
	22-31	20.00%	26.70%	23.30%
	32-41	50.00%	40.00%	45.00%
	42-51	10.00%	23.30%	16.70%
	>51	6.70%	3.30%	5.00%
Gender	Male	13.00%	10.0%	11.70%
	Female	87.00%	90.0%	88.30%
Religion	Hindu	63.33%	23.33%	43.33%
	Muslim	36.67%	76.67%	56.67%
Family type	Joint	36.7%	16.7%	26.7%
	Nuclear	63.3%	83.3%	73.3%
House type	Kacha	20.0%	13.3%	16.7%
	Pucca	60.0%	80.0%	70.0%
	Others	20.0%	6.7%	13.3%
Total monthly Family Income	≤5000	16.70%	10.00%	13.30%
	5001-10000	50%	43.30%	46.70%
	10001-15000	3.30%	16.70%	10%
	15001-20000	20%	20.00%	20%
	20001-25000	6.70%	10.00%	8.30%
	> 25000	3.30%	0.00%	1.70%
Occupation	Student	6.70%	6.70%	6.70%
	Service	10.00%	6.70%	8.30%
	Business	16.70%	3.30%	10.00%
	Agriculture	3.30%	3.30%	3.30%
	Independent worker	3.30%	3.30%	3.30%
	Labor	20.00%	10.00%	15.00%
	Homemaker	40.00%	66.70%	53.30%

The gender-specific educational conditions of the respondents are illustrated in **Table 2**. In both blocks, the majority of the schools were available in the nearby area, with Barasat-I having 100% and Barrackpore-II having 96.70%. Most children (96.7%) in both areas engaged in studies. The results indicated that respondents in Barasat-I (90%) and Barrackpore-II (93.30%) both reported that the Covid-19 pandemic influenced education. Most children in both areas (78.3%) pursued higher studies, with the tendency to pursue higher studies being higher in Barasat-I (93.3%) than Barrackpore-II (63.30%). It was found that the tendency for students to go outside was present in both blocks (13.3%), while it was negligible in the case of Barasat I (6.7%). Boys showed a higher tendency for higher studies in both areas (86%), with Barasat-I having 92.60% and Barrackpore-II having 86.00%, whereas girls had a smaller percentage in both areas (14.3%). The majority of respondents in both

areas believed that both boys and girls should receive equal education, with Barasat-I having 93.3% and Barrackpore-II at 96.7%. A small percentage believed that boys should be more educated. A percentage of girls in both areas faced obstacles to education, with Barasat-I having 21.4% and Barrackpore-II having 30.8%. The main obstacles reported were financial problems, while family and social problems were not reported. Boys in both areas faced financial problems as an obstacle to education. The majority of respondents in Barasat-I (76.70%) and Barrackpore-II (86.70%) had knowledge about the legal age of marriage.

The majority of respondents (96.7%) in both areas reported not having awareness programs related to child marriage, and only a small percentage reported having such programs. Child marriages had occurred in both areas, as stated by 50% of respondents of Barasat-I and 46.2% of respondents of Barrackpore-II. A percentage of girls in both areas got married during the pandemic, with Barasat-I having 13.30% and Barrackpore-II having 23.30%. In Barasat-I, 6.7% of individuals went outside for education, while in Barrackpore-II, it was 20.0%. Overall, 13.3% of the total respondents went outside their areas for education. The results showed that in Barasat-I, 100% of individuals who tended to go outside for education were boys, while in Barrackpore-II, 80% of such individuals were boys. In terms of gender tendency for seeking education outside their area, the percentage of girls was very low in Barrackpore II, and there was no representation from Barasat I. Boys comprised a larger proportion, with 85.7% of the total respondents. This suggested that there was a gender disparity in the inclination to pursue education outside the local area, with boys being more likely to do so compare to girls in both Barasat-I and Barrackpore-II.

Table 2: Gender-specified educational condition of the students in the study area

Variables	Category	Barasat-I	Barrackpore-II	Total
Availability of nearby schools		100%	96.70%	98.30%
Children in the area studies		93.3%	100.00%	96.70%
Effect of Covid-19 on education		90%	93.30%	91.70%
Anyone taken higher studies		93.3%	63.30%	78.30%
Anyone goes outside for education		6.70%	20.00%	13.30%
Gender tendency of higher study	Girls	0.0%	20.0%	14.3%
	Boys	92.60%	86.00%	86%
Gender tendency of outside education	Boys	100.0%	80.0%	85.7%
	Girls	7.40%	14.00%	14%
Who should be more educated	Boys	3.3%	3.3%	3.30%
	Girls	3.3%	0.0%	1.70%
	Both	93.3%	96.7%	95%

Faced obstacles by girls		21.4%	30.8%	25.9%
Type of obstacles for girls	Family problem	0%	4.2%	2.00%
	Financial problem	11.10%	12.5%	11.80%
Faced obstacles by boys		17.60%	31.30%	24.20%
Type of obstacles for boys	Financial problem	100.0%	100.00%	100.00%
Knowledge of legal age of marriage		76.70%	86.70%	81.70%
Conduct any awareness program		0.00%	6.70%	3.30%
Child marriage happened		50.00%	46.20%	48.00%
Girl's marriage during the pandemic		13.30%	23.30%	18.30%

Table 3 illustrates the effects of respondents' socioeconomic status on women's empowerment. It was observed that there was a significant effect of religion (0.05) on women's empowerment. Hindu women had a significantly higher level of empowerment compared to Muslim women. On the other hand, the type of house had a significant effect (<0.05) on women's empowerment. Individuals who lived in Kacha houses had greater empowerment than those who lived in Pucca houses. Overall, religion and the type of house seemed to have had a significant impact (<0.05%) on women's empowerment, while other factors examined in the study did not show a significant association.

Table 3: Effect of respondent's socio-economic status on women empowerment

Variables	Category	Mean of Women's Empowerment	F score	Sig
Religion	Hindu	7.5	8.075	0.006
	Muslim	5.82		
Caste	General	6.45	0.612	0.610
	SC	7.27		
	ST	7		
	OBC	5.5		
Gender	Male	7	0.276	0.601
	Female	6.49		
Age	<21	6	1.657	0.173
	22-31	6		
	32-41	7.33		
	42-51	5.4		
	>51	7		
Education	Illiterate	6.63	1.087	0.378
	Up to Primary	7.6		
	Up to middle school	6.89		
	Up to Secondary	6.63		
	Up to Higher Secondary	5.71		
	Graduate & above	5.14		

Income	≤ 5000	7.13	0.442	0.817
	5001-10000	6.82		
	10001-15000	5.5		
	15001-20000	6.25		
	20001-25000	6.2		
	> 25000	6		
Family _type	Joint	6.75	0.15	0.7
	Nuclear	6.48		
House _type	Kacha	7.8	3.683	0.031
	Pucca	6.02		
	Others	7.75		
Occupation	Student	5.75	0.495	0.809
	Service	6.2		
	Business	7.83		
	Agriculture	7		
	Independent worker	7		
	Labor	7		
	Homemaker	6.28		

A comparison of the status of gender-specific education between Barasat I and Barrackpore II was represented in **Table 4**. There was a significant difference (<0.05%) in the prevalence of children who had pursued higher studies. Barasat I had a higher prevalence of higher studies than Barrackpore II. It suggested that both the blocks may have had varying levels of educational attainment in terms of higher education as higher education stood out as a differentiating factor between the two areas.

Table 4: Comparison of the status of gender-specific education between two adjacent blocks

Independent Samples Test					
Variables	Barasat I (Mean Value)	Barrackpore II (Mean Value)	t score	df	Sig (2 tailed)
Obstacles for girls education	0.214	0.308	-0.53555	25	0.597005
Obstacles to boys' education	0.308	0.4804	-0.89458	31	0.377907
Availability of nearby school	1	0.966666667	1	58	0.321464
Child education in the study area	0.933	1	-1.43925	58	0.155456
Prevalence of higher study	0.933	0.633333333	2.977272	58	0.004238
Gender majority for higher study	1.074	1.25	-1.62097	41	0.11269
Go outside for education	0.067	0.2	-1.52315	58	0.133154
Covid-19 effect on child education	0.9	0.933333333	-0.46009	58	0.647175
Marriage during school closure	0.133	0.233333333	-0.99242	58	0.325113
Conduct awareness program	0	0.066666667	-1.43925	58	0.155456
Knowledge of the legal age of marriage	0.767	0.866666667	-0.99242	58	0.325113
Child marriage happened	0.5	0.461538462	0.266667	48	0.790868

Discussion

Gender inequality refers to the disparity between men and women in various social, economic, and political aspects. According to the Indian constitution, men and women are considered as equal and possessed equal rights. However, certain socio-economic and cultural factors hindered the realization of this equality. Women's conditions were often cited as a significant factor contributing to a nation's underdevelopment due to pervasive gender bias in society (Chowdhury & Sarkar, 2012).

For societal progress, it was emphasized that the education of women was essential, as they played a pivotal role in a nation's development. Education was seen as a means to reduce the existing inequalities between men and women (Bhat, 2015). Other studies also underscored the importance of education as a key feature of women's empowerment (Halder, 2012).

The study had been conducted to compare the gender-specific education status following the COVID-19 pandemic between two adjacent blocks in the North 24 Parganas district of West Bengal. The research had found that a majority of individuals in both areas reported that the pandemic had significantly impacted children's education. This aligns with other studies suggesting that the dropout rates for female students had increased following the COVID-19 pandemic, rendering girls more vulnerable. Female academics encountered more challenges compared to their male counterparts (**Burzynska & Contreras, 2020**). Additionally, research indicated that the dropout rate among girls was twice that of boys, with dropouts being more prevalent in rural, tribal, and slum areas due to various social factors (**Singh, 2016**).

The study's findings also revealed instances of child marriages occurring during the COVID-19 pandemic. Respondents confirmed that despite knowing the legal age for marriage, some girls got married before reaching that age due to economic burdens of the family (**Tisdell, 2002**). It was highlighted that many girls in the area got married before completing the legal age, often due to lack of awareness, which education could help address.

Despite a higher availability of schools in nearby areas in Barasat I, children's engagement with studies was lower compared to Barrackpore II. Most children in both areas had pursued higher studies, with a comparatively higher tendency to pursue higher education in Barasat-I than in Barrackpore-II. However, the rate of illiteracy was higher in Barasat-I. Boys exhibited a greater tendency for higher studies in both areas, while girls pursuing higher education represented a smaller percentage. This observation indicated that school-aged boys attended school more regularly than girls, suggesting persistent gender biases in sending children to school below the 10th standard, with girls often being relegated to household duties (**Majumder & Mitra, 2015**).

The study also highlighted that a majority of respondents in both areas believed that both boys and girls should receive equal education, but some respondents faced obstacles to their children's education, irrespective of gender. Economic, social, and cultural factors played significant roles in determining the role of women in society and their access to education. Gender biases were still evident among parents when it came to educating their children, with a visible disparity in the treatment of boys and girls (**Rammohan & Vu, 2017**).

Furthermore, the study revealed that Hindu women were significantly more empowered than Muslim women. It also suggested that religion had a significant impact on women's empowerment, with some Muslim respondents displaying discriminatory and stereotypical beliefs about women's roles. Poverty and a lack of financial assistance were noted as factors contributing to gender inequality, and while female literacy rates had increased, gender inequality in education persisted across various communities (**Islam & Siddiqui, 2019**).

Another notable finding was that many boys in the study area did not complete their studies beyond the age of 14. The presence of nearby firecracker factories offering employment opportunities without educational qualifications was cited as a reason for this trend. Boys were often viewed as the primary breadwinners of the family and were driven to seek opportunities to accumulate capital, often neglecting proper education. Child marriages in the area were attributed to relationships formed among teenagers, potentially driven by economic considerations and the pursuit of capital (Nath, 2014).

In conclusion, the study shed light on the persistent gender disparities in education and women's empowerment, emphasizing the importance of education as a means to address these issues. Additionally, it highlighted the influence of socio-economic and cultural factors, including religion, on gender inequality and women's empowerment. Further research was suggested to explore additional factors influencing women's empowerment in this context. Gender disparities in education and society at large remained significant challenges in India.

Conclusion

Education is recognized as a crucial tool for development, and the lack of education or illiteracy pose significant barriers in the lives of women. It is reflected in the present study result that many women were unaware of their rights and the government schemes aimed at women's welfare. Due to poverty, parents often favored their sons over their daughters. Therefore, it is essential to provide equal opportunities to women for their comprehensive development (Mishra & Som, 2014). Educating women not only elevated their status but also made them aware of their fundamental rights (Kaur, 2013).

Policy frameworks and the provision of educational opportunities for women played a vital role in women's development (Jain et al., 2017). Over the past few years, the Government of India had launched several schemes for girls across the country, including Beti Bachao Beti Padhao, CBSE Udaan Scheme, Balika Samridhhi Yojana, Sukanya Samridhhi Yojana, Ladli Scheme, and the Konya Kosh Scheme, among others. Additionally, state governments had implemented schemes to benefit girl children in various aspects, such as the Rajshri Yojna in Rajasthan, the Girl Child Protection Scheme in Andhra Pradesh, and the Kanyashree Prakalpa in West Bengal. While the implementation of these policies by different governments had undoubtedly contributed to women's development and empowerment, the prevalence of gender inequality in society continued to affect women's development and, consequently, the literacy rate of women.

In conclusion, the present study highlighted the various challenges existing in society and the urgent need to address the inequalities faced by most females. Providing equal opportunities for girl children was identified as a means to enhance their participation in education. Moreover, there was a lack of

Comment [L7]: The research conclusions also do not link its findings to the Covid-19 pandemic.

awareness about educational programs in the study area, which underscored the importance of government efforts to raise awareness about women's rights and educational opportunities for individual and societal development. Awareness campaigns and educational programs are suggested to tackle the issue of child marriage, with the government taking proactive measures.

Limitations: It is important to acknowledge the potential limitations of the study, including the relatively small sample size and its focus on only two adjacent subdivisions. These limitations may have implications for the generalizability of the findings to other regions or populations.

Comment [L8]: In the research limitations section, it must also be mentioned that the limitations of this research are because it only compares discrimination in education before and after Covid-19.

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