### Women Education In Calcutta (1947-1961) With Special Reference To West Bengal

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#### ABSTRACT:

This work focused primarily on the study of women in technical, scientific, and medical education in Calcutta, West Bengal in the post-colonial period in the years between 1947 and 1961. Although Calcutta, West Bengal has been the focal point of study, this work also included some of the issues related to the spread of higher education in other districts and mofussil's within the state. As the convenient entry point, it was proposed to begin with 1947 as it marked the birth of a new nation free from the shackles of colonial rule and it also enables one to draw up a comparative assessment of the developments taking place in pre and post-colonial Bengal.

Keywords: Women, Education, Calcutta, West Bengal

### A GLIMPSE - EDUCATION IN CALCUTTA (1947-1961), WEST BENGAL:

Up to 1961, the study focuses on and analyses the pattern of higher education and the expansion of professions in the basic sciences, such as mathematics, physics, and chemistry, as well as medicine and technical education for women in Calcutta. During the time period under consideration, 1947–1961, there was still a colonial, hierarchical structure in education. There were government-sponsored and aided institutions, as well as private and unaided colleges. There were medical schools and medical colleges in the field of medical education. A number of technical schools and polytechnic institutions awarding diplomas were established. From 1947 until 1961, India's first Prime Minister, Pandit Jawaharlal Nehru, served as Prime Minister, and his vision of science, later technology, and the growth of India as a whole was closely linked with the principle of equality for both sexes in the eyes of the law in all matters. It is possible to say that Nehru was not the only one who felt this way, but he may be said to have gone down a path that many others had avoided. In his speeches and actions at the time, Nehru seemed to express his concern and appreciation for women's equal rights. The study is all the more important in light of the fact that the

Constitution of independent India guarantees equal rights to men and women. As a result, parity between men and women was highlighted. When comparing the post-Independence reality in light of Nehruvian insights with past advocates of the cause of female education from the nineteenth century to the early part of the twentieth century, there was a striking disparity in terms of women's status [1]. In his prologue to Social Welfare in India: The Planning Commission, 1955, Pandit Nehru stated that "welfare must be the common property of everyone in India and not the monopoly of the privileged sections as it is today" in a welfare state like India. He placed a stronger emphasis on the welfare of children, women's rights, and the welfare of India's tribal and highland people. He believed that while Indian women had an amazing history and tradition behind them, as well as a long history of oppression, all of this had to go in order for them to play their full roles in the nation's existence. While committing to their uplift, Nehru was essentially reiterating the Directive Principles of State Policy and the Fundamental Rights granted in the Constitution, which addressed women and had a unique influence on their condition. As the "Towards Equality" report from the Committee on the Status of Women in India, which was published in 1974, said: More institutions were opened because people wanted more opportunities, and the demand for equality broke down the academic authorities' resistance, allowing women to train in fields that had been dominated by men for a long time. According to these studies, the distribution of women in various professions was not equal. According to the national classification of occupations adopted by the Census of India in 1971, the number of women teachers was 6 lakhs, or 30.3 percent of men, whereas their number in other professions was negligible, with scientists accounting for 10.9 percent of men and numbering up to 18,000 on a national level. Following World War II, the country's independence and partition, the establishment of new colleges, and social and economic changes resulted in an increase in demand for education. Calcutta had 69 colleges at the end of 1947, following the partition, and 123 at the end of 1956. To satisfy the tremendous demand of students, several Calcutta colleges in the period had to run classes in multiple shifts. Even post-graduate departments were unable to meet the demand of 25% of graduates seeking admission to their courses. According to data on the total number of candidates who took the final undergraduate examinations between 1933 and 1955, women's education advanced faster than men. Even more noteworthy is the fact that, when compared to arts courses, there was a rising inclination on the part of girls to pursue science education. Between 1933 and 1955, the number of girls enrolled in undergraduate studies increased nearly fivefold, from 0.9 percent to 5.2 percent at the B.Sc. level. This was in perfect harmony with the economy's structural developments in agriculture, industry, and the overall economy. The combined effect of an exceptional famine, communal violence, and India's division meant that education in West Bengal could never match the proportion of income growth or revenue spending progress that other departments had been able to achieve [2]. Thus, while education spending peaked at 12.1 percent of total revenue expenditure (\$12.76 crores) in 1938-39, it only accounted for 7.1 percent of total revenue expenditure in undivided Bengal in 1946-1947 (\$42.41

crores) under Muslim League rule. The new government claimed that not only had the falling trend in education spending been halted, but that education was slowly regaining lost ground, with its share of overall revenue expenditure rising from 7% to 9% by the end of 1947-48. A sum of Rs. 4,744,000 was granted in the Budget projections for 1948-1949 as intended for the upgrading of post-graduate departments, science instruction, and research activities, including the enlargement of the laboratories of the University Science College. To cover the budget gap at Calcutta University, an additional payment of Rs. 14,64,000 was made to the university during that year, compared to only Rs. 8,30,544 the previous year. The demand for girls' collegiate education was also addressed at the time by proposing to provide major financial support for the development of two non-government institutions, one in the Burdwan Division at Hooghly and the other in the north at Jalpaiguri. Someswar Prasad Mookherjee, the Principal of Ashutosh College, recommended the abolition of separate departments for girls and boys in colleges at the 24th session of the West Bengal College and University Teachers' Conference in April 1949, and described the segregation of girls from boy students as harmful. The Bhore Committee had already addressed this problem on the eve of independence in 1946, when it explicitly backed the study of girls at co-educational medical colleges with the goal of making woman doctors competent in their private practise and increasing the quality of patient treatment. Dr. Shyama Prasad Mookherjee recognised around this time that there had been a significant growth in the number of female students in recent years and that their achievement in several competitive spheres of academic activity had been encouraging. He opposed any restrictions on women's education and campaigned for the provision of liberal funds and research facilities for them. He also brought up the state government's incredibly low education spending, comparing it to neighboring states like Bombay, Central Provinces, and Madras, which spent 17 percent, 15 percent, and 14 percent on education, respectively. On the other hand, West Bengal, on the other hand, despite having the biggest number of pupils, only spent 9%, he regretted. This gap in the state's educational policy kept on going, as opposition party members kept on pointing out. The administration claimed that education spending climbed steadily between 1949 and 1953, as evidenced by the growth in the ratio of revenue receipts from 7.87 percent to 11.85 percent in the 1953 budget. Education expenditures as a percentage of overall expenditures on non-revenue-earning departments climbed from 11.3 percent in 1950-51 to 14.9 percent in the following year's budget. Education spending was the second highest among non-revenue-generating departments, with police spending taking top place. However, the opposition party criticized the government in its 1953 budget session for its disproportionately low expenditure on non-government colleges in comparison to its expenditure on government colleges, and also pointed out that, while there had been some increased provisions for women's colleges, the expenditure on women's colleges was still very low in comparison to the expenditure on men's colleges, despite the fact that women were enrolling in large numbers for university education. At the Annual Convocation of Calcutta University in 1955, Vice-Chancellor Dr. J.C. Ghosh of the University of Calcutta

argued that the topic of women's education in Calcutta was being seriously addressed. An Asian Lawyer's Conference in Calcutta debated the condition of women in Asia as early as 1955. Women from Burma, Australia, New Zealand, Egypt, Japan, Ceylon, and India were among those who attended. Mrs. Ai Kume of Japan accepted that legal equality for men and women had almost totally been recognised but that the feudalistic family system remained intact and that the public were unaware of these developments. They contended that the Indian Constitution's guarantees and reforms in marriage and family laws would be worthless unless women had access to sufficient education and economic independence to assess their rights. A big demonstration at the Assembly House was organised by the West Bengal Committee of the National Federation of Indian Women, which was led by Communist party MLA Sm. Manikuntala Sen. She advocated increased budgetary allocation to meet the growing demand for women's employment, as well as the establishment of centres in towns and villages to register the names of women willing to work, the integration of women's employment schemes into the Second Five-Year Plan, and legislation to prevent retrenchment [3].

## THE DEMAND FOR SCIENCE EDUCATION AMONG WOMEN STUDENTS AT THE UNDER-GRADUATE LEVEL:

Five new colleges for women were set up during the period under review which is an indication of the fact that there was an increased demand for girl's colleges. For example, the Secretary of the Dum Dum Motijheel College made an application praying for permission to start evening classes for girl students in English, Bengali, History, Logic, Civics, Commercial Geography in his college from the session 1951-1952. Although the proposal was turned down, it marked the growing demand for collegiate education from the girl students and the failure of the colleges to accommodate them in the day session. Between 1950-1956, the number of girl's colleges had increased from fifteen to eighteen. Sarojnalini Girls College, Kolkata, Deshbandhu College for Girls, Kolkata, Shree Shikshayatan, Kolkata, Maharaja Uday Chand Girls College, Burdwan, Tangra College, 24 parganas, besides City college, Ashutosh College, Vidyasagar College, Dumdum Motijheel College had separate departments for women students. A dichotomy, however, is discernible in the educational policies pertaining to women in West Bengal at about this time. While the mood it seemed, had in many cases been set for the economic empowerment of women in various branches hitherto untrodden by them, there was this atavistic tendency time and again to contain women within the confines of household chores. This was showcased by none other than the state Chief Minister Dr. B.C. Roy who laid the foundation stone of Calcutta University's Viharilal Women's College for Home and Social Sciences in 1955, although other arts and science subjects were also taught. Dr. J.C. Ghosh, Member, Planning Commission emphasized on the need for women's education and admitted that public expenditure on women's education had risen progressively by 10% each year. In 1951-52 expenditure exclusively on women's education had amounted to Rs.3.50 crores. While in that year there were 7,800

women studying in different colleges in Calcutta, Bombay a richer province with one and half times the population of Bengal had only 8,000 female students at the university for that year. But he did not fail to add that although some parents in Bengal would not spare any sacrifice in getting their daughters a proper education, there were still some others who were rather old fashioned in their mindset, as they considered public expenditure on women's education a waste of money. By stating this he was in a way arguing for the establishment of a college for Home Science for female students to remind them of the typical Victorian virtues of a "good mother, good wife" and also in a way satisfying the conservative urges of a patriarchal society. The Congress government in West Bengal under the Chief Ministership of Dr. Bidhan Chandra Roy towed the central policy as far as the higher educational concerns of the state were concerned [4]. Dr. Roy who shouldered the responsibility of the Honorable Minister-in-charge of Education as well, declared that his government acted in accordance with the University Education Commission also known as the Radhakrishnan Commission of 1948 that laid stress on unitary teaching universities and small colleges with a view to ensuring efficient instruction, corporate life and contact between students and teachers. The number of students in the University of Calcutta was increasing rapidly year after year and so considering the demand for higher education, among both boys and girls, two teaching residential universities in North Bengal, in the Darjeeling area, and one of the rural types in Kalyani were proposed to be set up. The University of Burdwan, which was to function as an affiliating university would primarily deal with industrial development in the respective areas. In order to avoid overcrowding in colleges six new colleges were set up in and around Calcutta with the help of the Government of India. Besides two more-degree colleges for women had also been sanctioned- one at Midnapore and the other at Purulia. For the welfare of needy under-graduates studying in overcrowded Calcutta colleges, three Day Students" Homes had been set up including one exclusively for women. These measures were not enough to accommodate the rising number of students, both male and female [5]. The then member of the legislative Assembly from Patashpore, Midnapore, Sisir Kumar Das raised issues pointing to the failure of the government to allot more money to the University of Calcutta for meeting additional facilities for the students desirous of reading in the post-graduate classes. The government, however, defended its stand arguing that there had been increase in the budget allocation for education. From 2 crores of rupees in 1947-48, the budget allocation had increased to 11 crores and the number of colleges had increased from 55 to 96 within a span of ten years. It was also argued that while there were no colleges for women at the time of independence outside Calcutta, by 1952 there were two-degree colleges in Burdwan, one in Hughli and another in Murshidabad. This would definitely point to the spread of education outside the city of Calcutta. But low salary scales for teachers proved to be a deterrent to attract college teachers in the districts. This was articulated by a member of the Legislative Assembly Sri Pramatha Nath Dhibar who cited the case of the students of Burdwan Raj College which faced great difficulties due to shortage of teaching staff especially for subjects like Chemistry

and English. There was also a demand made to upgrade the existing facilities for postgraduate teaching in science, while the problem of space for the proposed new colleges continued to be another deterrent towards the development of higher education in West Bengal. The setting up of the Kalyani University to deal with subjects primarily concerned with the rural population, such as humanities, agriculture, veterinary science, animal husbandry and biological sciences did not reflect the setting up of institutions conducive to promote the teaching or research in the basic sciences with which the Nehruvian government was much preoccupied at that time. In the mid-1950s, a provision of Rs. 14,05,000 was made in the education budget proposal for the improvement of nongovernment colleges in respect of their equipments and salary. The government colleges were granted Rs.8,00,000 for the improvement and development of educational institutions at the college level. A further instalment was also proposed for 45 colleges which were already under the consideration of the University Grants Commission scheme in connection with the introduction of the three-year degree course. A provision was also offered for the housing of teachers belonging to colleges stationed at urban and rural areas and scholarship and maintenance grants were likewise mooted for the needy and meritorious students encouraging them to pursue higher education [6]. The same was extended to the students at the university level as well. While allowances were given to the needy and the meritorious students, the typical problems faced by women in a patriarchy remained unaddressed and they were brought at par with men who did not face the socio- economic inhibitions that thwarted a woman from pursuing higher education and careers particularly in the sciences and engineering and some branches of medicine. A landmark in scientific research in India was achieved with the laying of the foundation stone of new laboratories of Bengal's oldest and pioneer Association, the Indian Association for the Cultivation of Science (IACS) devoted entirely to fundamental research in science by Dr. B.C Roy the Chief Minister of West Bengal in 1948 at Jadavpur. As early as 1948 eminent scientists of the period like Dr. Meghnad Saha, President of the Council of Post-Graduate teaching in Science, University of Calcutta, submitted a blue-print to the Vice-Chancellor of the University of Calcutta for the development of the University College of Science, comprising fourteen departments. Increments of salaries of the members of the staff as well as of the research scholars was advocated by him. Merit was prioritized while admitting students to the research programme. This was well complimented by Dr. Priyadaranjan Ray, the Director of Indian Association for the Cultivation of Science when he announced a hike in the demand for research grants- a measure prompted to retain the best brains in the discipline. Official correspondence of the period, between the University Grants Commission and the Registrar of the Calcutta University proved that the former on behalf of the Union Government was ready to grant Rs.1,21,300 for the development of Post-Graduate Training and Research in the financial year 1955-56 in core science subjects like Physics, Chemistry along with Anthropology, Statistics, Education and Teachers Training, Education and Teachers. Training still remained the prime area which provided employments for the middle-class

women. Grants to the tune of one crore rupees to the University of Calcutta were also forthcoming from the University Grants Commission on the occasion of the university's centenary celebrations. New professorships, research scholarships and fellowships were to be instituted from this grant. Besides fifteen lakhs were to be spent for the development of the University College of Science and Technology and another fifteen for providing amenities to students in Calcutta colleges. Apart from this, rupees 30 lakhs were kept aside for converting the Senate Hall into a multi-storied structure, for land and buildings for the University College of Laws, its Hostel and the Institute of Legal Studies. Funding from the UGC in these categories was an index of the central government's policy of promotion of higher education, although separate provisions for women in higher education were not clearly chalked out. By 1957 some changes in the official temperament could be seen. In that year, the Secretary to the University Grants Commission addressed a letter to the Registrar University of Calcutta directing the University to attach due attention towards women's colleges in matters of salaries for the teaching staff. A proposal to raise the same was also requested. During the period of the second Five-year Plans, the issue of assistance to the teachers in the women's colleges was given due importance [7]. A proposal to increase the salaries of teachers to the extent of 75% for colleges which were exclusively meant for women was declared. This implied that women's education in new India was actually coming of age and it set the stage for the appointment of the Durgabai Deshmukh Committee of 1958 that gave a fillip to women's higher education in India.

# AFFILIATION IN SCIENCE SUBJECTS PARTICULARLY FOR GIRLS' COLLEGES AND GRANT OF FUNDS AT THE UNDER-GRADUATE LEVEL:

In the immediate aftermath of independence, female students in and around Calcutta continued to have a strong demand for essential sciences such as physics, chemistry, mathematics, geography, and biology. The application for an extension of affiliation in core science disciplines up to Intermediate Science standards, submitted by the Principal of Gokhale College, clearly demonstrated this. The National Committee on Women's Education, May 1958-Jan.1959, Ministry of Education, Government of India, Publication No. 408. New Delhi, 1959, p.1. One college, the Victoria Institution, also applied for extension of affiliation of the college in the basic sciences such as Physics, Chemistry, Mathematics, and biological sciences such as Zoology and Botany, up to the B.Sc. standard from the 1956-57 session. The team of inspectors established by Calcutta University to investigate the subject included eminent academicians such as Dr. Ashima Chatterjee, Dr. Ilabanta Banerjee, and Sri Durgadas Mukherjee. They filed a report granting the aforementioned subjects' connections to the various universities. Several women's colleges, including Deshbandhu College for Girls and others in the city, did not seek affiliation in science courses at the under-graduate level until the mid-1950s. For example, Muralidhar College for Girls, for example, had been denied affiliation in science disciplines at the honours level due to a lack of laboratory equipment,

which was exacerbated by a lack of space. Many non-government colleges outside of the city, such as Suri Vidyasagar College, Burdwan Raj College, Victoria College in Cooch-Behar, Vivekananda College, Barisha, and Tamralipta Mahavidyalaya, saw an increase in the grant and extension of affiliation in science courses up to Honours standards in 1957. Bethune College, a prestigious girl's college, was awarded affiliation in the basic sciences such as mathematics and chemistry in 1957, in addition to the biological sciences such as botany and zoology, up to the B.Sc. Pass Course standards that it had previously enjoyed. A few coeducational colleges on the outskirts of the city, such as Brahmananda Keshab Chandra College in Bon-Hooghly and the Dinabandhu Andrews College in Vaishnabghata, Gurudas College in Narkeldanga, and a women's college, Sarojini Naidu College in DumDum, applied for an extension of affiliation in Physics, Chemistry, and Mathematics at the B.Sc. Extension of affiliation in these subjects was rejected by Gurudas College on the grounds that the college lacked the appropriate personnel and laboratory equipment. From the sessions of 1959 to 1960, the Director of Public Instruction advocated affiliation of a governmentsponsored women's college at the official policy level of the state. It was planned that the college be affiliated with the core sciences of mathematics, physics, and chemistry up to the B.Sc. level. From the semester 1959–60, two more women's colleges, the Victoria Institution for Girls, were awarded extension and affiliation in Chemistry, Botany, and Zoology at the B.Sc. Pass Course standards. On the other hand, the inspector of colleges, on the other hand, expressed regret for not being able to recommend the college for extension of affiliation in Zoology up to the B.Sc. Honours level unless a dedicated laboratory for Zoology Honours was provided. Basanti Devi Institution, a government-sponsored women's college on Rashbehari Avenue, was granted affiliation in Physics, Chemistry, and Mathematics up to the B.Sc. Pass Course standard. The Surendranath College for Women's Secretary asked for a separate affiliation of the women's department, which was established in 1947, under the name Surendranath College for Women, with a distinct governing body and a separate principal. This was unmistakably an indicator of women's increasing demand for higher education in these fields. By the end of the Second Five Year Plan period, it also represented the dispersion and filtration of education throughout all parts of society at the collegiate level. The Secretary of the Governing Body of Asutosh College also submitted an application to Calcutta University, requesting that the women's department of the college be considered for a separate affiliation under the name and style of Asutosh College for Women [8]. The Syndicate also reviewed a similar plea to grant a separate affiliation to Vidyasagar College's women's section. On the one hand, this reflected the administrative body of the colleges' concern and growing need to facilitate and accommodate women's demand for higher education; on the other hand, it exposed the structural inadequacy of several of the colleges, which lacked the basic infrastructure, such as space or well-equipped laboratories, to meet the special requirements of these subjects at the honours level. Sm. Mira Duttagupta, a postgraduate in Mathematics and Principal of Vidyasagar College, was suggested by the Faculty of Science of the University of Calcutta for election to the post of Added Member in the

Faculty for the academic year 1950-51. This was notable in light of the fact that science was still regarded as a "man bastion" at the time, and her appointment to the administrative job was therefore unique, as well as a reflection of the fact that gender bias in the core sciences was finally fading. It could also be interpreted as an attempt to break free from the constraints of the past. The Right Honourable Rai HarendraNath Rai Chaudhuri, Minister-in-Charge of the Department of Education, gave a detailed presentation on the state government's efforts to promote collegiate education. The number of colleges had increased from 51 in 1946-47 to 113 in 1958-59, with a total enrolment of 1,18,186, and the state government had to spend Rs. 72,61,000 on direct college expenditures, compared to Rs. 14,20,224 in 1946-47. The government was attempting to meet demands for the development of collegiate education beyond the normal cost of doing so, such as allowing colleges to offer three-year degree programmes and providing grants to match the University Grants Commission's grants for the cost of revising college teacher salaries. The budget included an additional Rs. 80.87 lakhs for college improvements and the implementation of a three-year degree program. In addition to the statutory grants given to the Calcutta University, a provision has also been created in the state budget for matching grants to the Calcutta University in order to expedite the development of university education in West Bengal. The Jadavpur University was to receive a sum of rupees 17,69,000, while the Burdwan and Kalyani Universities were to receive rupees 87,98,000. A total of Rs. 31,00,000 was included in the total grant demand under this heading for financial aid to existing institutions and the establishment of new universities, as well as a separate demand of Rs. 81.23 lakhs. In his presentation to the joint session of the Assembly, the Governor stated that the government had to deal with the problem of growing college enrollment. In arts and sciences, eight funded colleges were promoted to the degree standard. Three new colleges have been built on a sponsored basis to address overcrowding in Calcutta institutions. The number of sponsored institutions had increased to 41 out of a total of 120 arts and science colleges. The overall number of boys' and girls' colleges increased from 130 in 1950-51 to 154 in 1956-57. The demand for higher education had grown to the point where the institutions' and Calcutta University's resources could no longer keep up with the rising numbers, particularly in post-graduate classes. To better serve West Bengal's evergrowing student population and avoid overcrowding within the Calcutta University's jurisdiction, state education minister Rai Harendra Nath Chaudhuri informed the house that the government had already decided to establish a new teaching and affiliating university in the northern part of the state, with jurisdiction extending over the districts of Darjeeling, Jalpaiguri, and Cooch-Behram. Apart from the regular Humanities and Science disciplines, the projected University was to include facilities for the teaching of particular subjects and professional courses such as engineering, medicine, and the like, with the primary goal of serving the five northern districts of North Bengal. In this situation, the state government became concerned about the need for technical education, which was in line with the federal government's higher education programme. The University of Calcutta's challenge of finding

qualified lecturers for post-graduate programmes continued to wreak havoc on West Bengal's higher education aspirations. This was a clear result of the University's inexcusably low remuneration for teaching employees. A sum of Rs. crores was set aside for the expansion of educational institutions under the Third Plan. Since the state's declaration of independence, the number of colleges has more than doubled. Calcutta University had embraced the three-year degree course on the parameters laid forth by the U.G.C., and the State government had to accept an additional financial burden for the development of higher education in the State. The decision of the University Grants Commission to limit the enrolment of large colleges to 1500-2000 students only resulted in the development of thirteen new colleges in and around Calcutta. Three new colleges were proposed to be built both within and outside of the city, with plans to open for the upcoming academic year. If more money were available, the government believed that one or two more colleges would need to be constructed in order to facilitate the reduction of students in the large colleges. While Calcutta's education community applauded the Central Administration's stated attempt to reduce college overcrowding, the state government believed the scheme's financial repercussions would be too great. The Union Government proposed to cover half of the capital and recurrent expenditures, with the state government contributing the rest. Overcrowding in Calcutta colleges prompted the necessity to divide the colleges. According to statistics, approximately 50,000 students were spread among the city's 30 colleges. Over 35,000 of these students were concentrated in the city's five major colleges. To deal with the influx of students, many universities implemented shifts, and some even opened branches. In terms of collegiate education, efforts were made to meet rising demand, but a member of the West Bengal Legislative Assembly, Sambhu Charan Ghosh, made a passing reference to the need for women's education, saying that there could not be educational development in this country unless women were also given equal opportunities to access higher education because they had already broken the chains imposed on them. The necessity to incorporate a larger number of women in the construction of a new India was a recurring theme in the speeches of the time's top politicians. Pandit Nehru had stated during an A.I.C.C. meeting in Beleghata, Calcutta, in 1956 that the status of women was the best measure of a country's progress in cultural and other domains. He had agreed that India had achieved political freedom and that women, too, had a role to play in resolving the country's social and economic challenges. He believed that no social development could be made as long as women were enslaved. He used the example of China to argue that China had achieved the most progress in the social domain since all of its women had been granted emancipation. Mr. Nehru also fought for greater female representation in state legislatures, Parliament, and other organisations. He acknowledged the Social Welfare Board's excellent work in assisting women's welfare organisations. The national leaders were pleased with the significant number of women who attended the sessions. At the meeting, dignitaries such as Congress President Mr. Dhebar and Mrs. Indira Gandhi stated their main concerns about social issues such as the avoidance of child marriage and sati, as well as the eradication of ignorance. The

idea that women were the only ones who could combat widespread ignorance was vigorously defended. But whether they could be economically empowered was a question that had yet to be answered, despite the fact that the print media at the time had been vociferous about Bengali women's renaissance since the 1930s. Apart from economic desperation, a new ambition for a better quality of life has driven Bengali women to take up the challenges of education, service, and professional employment at all levels for the past two decades, according to a reputable daily. Between 1938 and 1946, the surge in the number of women matriculating compared to males was over 1000 percent for women, compared to 250 percent for men. Despite all of the rules, women's employment opportunities were limited [9]. The vast majority of them preferred to educate. A big number of people were looking for work as typists, stenographers, receptionists, and telephone operators in offices. Only a handful of women who registered with the National Employment Service in West Bengal were absorbed. There were other women looking for work at schools and colleges who had never been registered with the Employment Directorate.

# SCHOLARSHIPS AND D. PHIL DEGREES FOR WOMEN RECIPIENTS IN CORE SCIENCE SUBJECTS:

A check of the list of scholarship and medal recipients during the time of my investigation reveals that several prominent medals and prizes were given to female students at the intermediate science level. Sudha Basu, a non-collegiate student at City College, received the Rai Radhikaprasanna Mookherjee Bahadur C.I.E. prize, Lalita Bhaduri of Presidency College received the Nagendra Gold Medal, Lalita Sarkar of Asutosh College received the Roxburgh Gold Medal, and Toshini Ghosh of Berhampore K.N.College received the Nawab Abdul Latif and Father Lafont Science Scholarship. Sobhana Dhar, a student in the Physics department of the University of Calcutta, received the Premchand Roychand Studentship in Science for 1951. In the first twenty years of India's independence, Tuhina Ghosh and Purnima Sengupta were among those who received D.Phil. degrees in Pure Physics. Sm. Nilima Basu was a pure physics scholar who received her D.Phil degree around the same period. At that time, Ila Dutta and Arundhati Ghosh were named Associates of the Institute of Nuclear Physics. Dipti Mitra was accepted into the Pure Physics D.Phil programme after June 1960. This speaks volumes about female students' achievements in core disciplines such as Physics, not to mention Ashima Chattopadhyay, the first Bengali woman to achieve exceptional heights in another core discipline, Chemistry. Physics appeared to be a favourite subject among female scholars. Miss Lilabati Ray was suggested by Professor Satyendranath Bose for the renowned Khaira Research Scholarship, which was later accepted by the Syndicate. Another scholar who received a D.Phil Science degree in Chemistry was Manisha Basu. While still a research scholar, she accepted a temporary position as Professor of Chemistry with the West Bengal Education Service, balancing both higher education and the teaching profession. Others who received D.Phil. degrees in pure chemistry include Sephali Guha and Jayanti Nagchaudhuri.

The next to receive the degree, in 1957, were Roma Ghosh, Alaka Bhattacharya, and Sujata Sen. In 1959, Rama Banerjee was awarded a D.Phil. in Pure Chemistry. In the year 1953, Anima Debi received the renowned Nagarjuna Prize in Chemistry. Out of the three candidates who had filed theses that year, she was the only female candidate to get this honour. Anima Chaudhuri and Manjuli Ghosh both received D.Phil. degrees in Pure Chemistry. Dr. Asima Chattopadhyay, who was named Reader in the Department of Pure Chemistry at the University of Calcutta, was the first woman from Bengal and India to acquire a coveted D.Sc. degree in Chemistry. Her appointment as the first female professor in the Department of Chemistry at the University of Calcutta seemed to set new aspirations for the post-colonial higher education system's burgeoning new class of highly educated women. Teaching, nursing, and medicine were the most common professions for women during the colonial period. However, they were frequently forced to settle for a position as a primary or secondary school teacher. However, after independence, India saw a significant change in this and established new expectations for career-minded female professionals. As a result, we witness Dr. Asima Chattopadhyay overseeing Anima Chaudhuri, her first female research researcher, who went on to become a Professor of Chemistry at the Victoria Institution shortly after her study was completed. Following that, with the help of a 'Foreign and Research Scholarship' from the V. L.Mitra Fund, Anima Chaudhuri was accepted to postdoctoral studies at Wayne University in the United States. Bani Talapatra was another student who excelled in chemistry and became one of Professor Chatterjee's illustrious students. In the post-colonial study of women in science in Calcutta, the desire for higher education among women was a noteworthy aspect. Dr. Krishna Kamini Rohatgi, a D.Phil, was then appointed Honorary Lecturer in the University of Calcutta's Department of Pure Chemistry. Professor P.B. Sarkar (as Ghosh Professor of Pure Chemistry) nominated Sujata Sen as a Research Scholar in 1956. Sunanda Bardhan, another research researcher, received her D.Phil in Chemistry in the same year. Dolly Ray and Rama Bhadra were also admitted to the D.Phil. programme in Pure Chemistry in the same year. On the other hand, Gita Dutta and Kamala R. Thatta were awarded D.Phil. degrees in Pure Chemistry in 1959. Abha Mitra, a lecturer in mathematics at the University of Patna, had approached Calcutta University in the previous year with the hope of receiving an abroad fellowship from the V.L. Mitra Fund to pursue a Ph. D degree, but it was ultimately denied. Women received post-graduate scholarships, medals, and honours in a variety of scientific disciplines, particularly between 1947 and 1959. Rekha Raychaudhuri, a pure physics student, was awarded the Jogmaya Devi Gold Medal for achieving first place at the M.Sc. level. In the year 1960, Bani Sen was awarded a D.Phil. degree in Pure Physics. The University of Calcutta's Vice-Chancellor, N.K. Sidhanta, noted that a high number of students needed to be trained at the post-graduate level, particularly in science courses, due to the continued need for and proficiency in science topics. The number of science graduates was not insignificant, despite the fact that the majority of them were arts graduates. He said that the rise in the number of women going to school was like a social revolution. When women worked in the core sciences, there were

fewer of them than men. The field's most important people noticed and valued their work. Surprisingly, there were no female students at the post-graduate level in technology during this time, with the exception of Ila Ghose, who was the sole woman engineer to graduate from the B.E. college in 1951. According to her own admission, there were no female students at Shibpur College for a long time after she graduated, owing to the fact that engineering positions for women were few at the time. When it comes to the allocation of lump grants to the University of Calcutta's Arts and Science departments, we can observe that the Arts departments received Rs. 10,500, while the Science departments received Rs. 23,00. This was an indication that the science department's development was being given considerable attention. Of course, when it came to allocating government grants to non-government colleges such as South Calcutta Girls' College, St. Paul's College, Victoria Institution, and Women's College, Calcutta, it was unavoidable that co-educational colleges such as St. Paul's would receive far more for laboratories than women's colleges. Gokhale Memorial Girls' College and South Calcutta Girls' College are two of many girls' colleges in Calcutta, but the government gave them less money for labs than most of the other mostly male colleges in the city. Despite this, there was still a lot of money for labs at these colleges. By 1956, the University of Calcutta had established an Institute of Nuclear Physics with the help of the central government, and efforts to construct the Indian Association for the Cultivation of Science had begun. However, a key member of the opposition, Manikuntala Sen, stressed the necessity of providing jobs to good students in order to prevent national waste on the floor of the West Bengal Legislative Assembly. In 1956, there was also a more visible movement for scientific advancements. During the first meeting of the Planning Commission's panel of scientists, Dr. J.C. Ghosh, a member of the Planning Commission, told the group that "modern economic development" needs "scientists." Minutes of the Syndicate, University of Calcutta, 1954, Pt II,p.341 Minutes of the Syndicate, University of Calcutta, Dec.1955, Pt. I, p.438; Minutes of the Syndicate, University of Calcutta, Dec.1955, Pt. I, p.438; Minutes of the Syndicate, University (Proceedings of the Committee on the Distribution of Government Grants to Non-Governmental Colleges (1954–55), 19th January, 1955, p.437.) See also the Proceedings of the Committee on the Distribution of Government Grants to Non-Governmental Colleges (1955–56) on the 10th of February 1956, p. 515. minutes from the Syndicate, University of Calcutta: February 10, 1956; February 23, 1957; and June-August 1958.He believed that in order for pure scientific research to thrive, colleges must have an atmosphere of complete freedom. He believed the University Money Commission was responsible for providing contemporary laboratory facilities in institutions and providing adequate grants to deserving research workers. The emphasis on science education at the time was also influenced by international trends at the time, which emphasised science and technology as tools for a nation's social and economic success. He used the Rockefeller Foundation to promote research, as well as communist countries like Russia, which had more experience with planned economies than any other country and trained students for research careers in science, technology, agriculture, medicine, and educational facilities at

state expense in 1953. As is well known, the early years of the planning period following independence saw a greater emphasis on scientific research than engineering, which was considered the key to a country's economic and social advancement and development. There were also forays into engineering research, particularly in the fields of chemical, mechanical, and electrical engineering. The Nehruvian dream of creating a "new India" guided the design of his policy on science education in India. His multiple remarks to the student community mirrored this nationalist stance time and time again. In a 1956 address to the Indian Science Congress Association in Calcutta at the Bengal Engineering College, Sibpore, Mr. Nehru emphasised the importance of students viewing their jobs not just as a way of securing their subsistence but also as a method of constructing the "new India" of his ambitions. Academics thought that Calcutta University's research facilities and incentives didn't match up with the pace and need for research. Calcutta University should be decentralized, and institutions should be given more support and authority to improve. Mr. C.D. Deshmukh, Chairman of the University Grants Commission, felt that while the education provision in the Second Plan had been raised, it was still proportionately less than in the First Plan. Secondary education should be more diverse and more technological institutions should be set up [10]. This was thought to help with industrial and technological progress.

#### **CONCLUSION:**

To summarize, the government made a purposeful and planned effort in the first two decades after independence to widen the breadth of medical education not only at the undergraduate but also at the postgraduate level in order to provide quality health-care to the general public. The policies, on the other hand, were largely grandiose attempts to expand the scope of medical education, but they were not grounded in reality, despite the government's best intentions, as infrastructural issues with accommodation and structural issues with low pay for medical professionals continued to plague the profession, particularly in the government sector. These issues, which went ignored, discouraged women from joining the medical profession, even after they were hired. Because there was no pro-women legislation to help transform women's standing within their families and in the public arena, women were forced to overcome male dominance and rivalry not only at home, but also in the public sphere. Women's decades of slavery and late start in schooling had been all too quickly forgotten. As women gained equality with males, they appeared to highlight the system's flaws once more. True, women had worked with males to achieve political independence for the country, but the road to social and economic equality for women had only just begun.

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