CHAPTER 3


This chapter will focus primarily on the study of women in technical, scientific and medical education in Calcutta in the post-colonial period in the years between 1947 and 1961. Although Calcutta has been the focal point of my study, this chapter will also include some of the issues related to the spread of higher education in other districts and mofussils within the state. As my convenient entry point I propose 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.

The chapter seeks to focus on and analyze the pattern of higher education and the growth of professions in the basic sciences, such as mathematics, physics and chemistry, in medicine and technical education in so far as women in Calcutta were concerned up to 1961. During the period under review i.e., 1947-1961 colonial, hierarchical structure in education still persisted. There were government aided colleges, and sponsored colleges as well as unaided or private colleges. In the sphere of medical education, there were medical schools and above them medical colleges. Several technical schools and polytechnic institutions were set up offering diplomas. My work would concentrate on those
engineering and medical colleges which offered bachelor degrees. It would broadly deal with the under-graduate level of education, with emphasis on the teaching of science curricula and enrolment patterns of women in the core science subjects at the collegiate level. This would obviate a discussion on the affiliation or extension thereof of the colleges, co-education, male, or female, to the basic sciences and also to the courses, B.Sc. Pass (Subsidiary subject) or Honours standard. Post-graduate studies at the university level and research by women scholars in the higher centres of learning, such as the universities or at the reputed science institutes would form another section of this chapter. This would be followed by a third section that would deal with the shift in paradigm from an emphasis on scientific research to technological advancement. Women’s participation and the growth of their careers in technology would also be traced since at that time, at the national level of leadership, technology was seen as a sine qua non in the country’s path to progress and prosperity. Its development was sometimes modeled on the British pattern of progress and at other times it tried to emulate Communist China or Soviet Russia in course of India’s planning period. The growth of women medics and their success in the medical profession in this period would be analyzed in section IV. The year 1961 has been taken as the exit point in the chapter as it marked the end of the Second Five Year Plan and the beginning of the Third Five Year Plan. It was in that year that the Committee on the Differentiation of curricula for boys and girls was appointed under the chairmanship of Hansa Mehta. The Committee debated the issue of
differences in the curricula between boys and girls but its limitation like the other committees and commissions of the time lay in the fact that it was preoccupied more with primary and secondary education. Differentiation of curricula was not advocated at the primary and secondary levels but the thrust was on preparing girls for making them suitable for social welfare work.¹ The committee was silent on the higher educational curricula of women students.

The period 1947-1961 coincided with the premiership of India’s first Prime Minister, Pandit Jawaharlal Nehru, whose vision of science and later on technology and the advancement of India as a whole was inextricably entwined with the idea of equality for both the sexes in the eyes of law with regard to everything. It would be safe to argue that Nehru was not the only one in this regard but that he may be considered to have taken a path which many others had hesitated, Nehru seemed to voice his concern and regards for the equal rights of women as was reflected in his pronouncements in the policies of the time. The study becomes all the more pertinent in view of the fact that equal rights had been guaranteed to both men and women by the Constitution of independent India. It, therefore, highlighted parity between men and women. There was a remarkably sharp contrast regarding the status of women when one seeks to compare the post Independence scenario in the light of the Nehruvian reflections with the earlier champions of the cause of female education right from the nineteenth century to the early part of the twentieth century. Thus in

¹ www.thehindu.com/2001/01/09/stories/13090179.htm, p.1
his foreword to *Social Welfare in India* - *The Planning Commission, 1955*, Pandit Nehru had remarked that in a welfare state such as India, ‘welfare must be the common property of everyone in India and not the monopoly of the privileged groups as it is today.’\(^2\) He laid greater stress on the welfare of children, the status of women and the welfare of the tribal and hilly people in India. He believed that as the women in India had an inspiring background of history and tradition behind them and had suffered much from various kinds of suppression, all of these had to go so that they could play their comprehensive roles in the life of the nation. While pledging for the uplift of women, Nehru was actually reiterating the Directive Principles of State Policy and the Fundamental Rights guaranteed in the Constitution which concerned women and had a special bearing on their status.\(^3\) The constitutional guarantee of equality of opportunity and non-discrimination on grounds of sex in employment and office under the state and the specific directive to promote with special care the educational and economic interests of the weaker sections of the people had a direct bearing on the employment aspirations of middle class women. The rapid expansion of women’s education that characterized the post-independence period gained momentum as a result.


The Report of the Committee on the Status of Women in India, 1974 entitled ‘Towards Equality’ observed that the demand for increasing opportunities led to increase in the number of institutions, while the demand for equality broke down the resistance of academic authorities, and opened to women training in engineering and other applied and vocational sciences which had been monopolies of men till then.\(^4\) Numerous reasons have been advocated for the increasing entry of a new class of women in the field of wage employment. Among these, financial compulsions to look after the dependent, young and old family members coupled with rising prices, levels of unemployment among the youth, the increasing costs of education and housing, absence of social security, the disintegration of the joint-family system, and sometimes the aspirations for higher standards of living had increased the necessity of having more than one earner in the family. Again, non-economic factors such as the need to utilize their education and training also featured as one of the most important forces explaining the entry of the urban-middle class women into the professions – a fact that forms the focal point of my study.\(^5\)

Studies reveal that the distribution of women in the professions was not uniform. The national classification of occupations adopted by the Census of India, 1971 indicates that the number of women teachers was 6 lakhs, 30.3% in relation to


\(^5\) Ibid,p.149
men, whereas their number in other professions was negligible—physicians and surgeons 0.2 lakhs and 7.1% in relation to men, followed by women scientists who constituted 10.9% and numbering up to 18,000 on a national level.\(^6\)

The post world war II period was followed by the independence and partition of the country, setting up of new universities, social and economic changes that led to an increasing demand for education. At the end of 1947, after the partition, the number of colleges in Calcutta stood at 69 and at the end of 1956 the number stood at 123.\(^7\) A good number of Calcutta colleges of the time had to hold classes in more than one shift to enable them to meet the heavy rush of students. Even the post-graduate departments could not accommodate the demand of 25% of the graduates seeking admission to its course. Going by the records of the total number of candidates who had appeared in the final undergraduate examinations in 1933 and 1955, it becomes obvious that women’s education had advanced at a faster rate than that of men’s. Still more intriguing is the fact that there was an increasing bias on the part of girls to take to science education as compared to the Arts courses.\(^8\) Between 1933 and 1955, there was an almost five times increase in the number of girls at the under-graduate level.


\(^{7}\) Pramathanath Banerjee et al ed. Hundred Years of The University of Calcutta, (Calcutta: University of Calcutta, 1957),p.405

\(^{8}\) Ibid
of study from 0.9% to 5.2% at the B.Sc. level. 9 This was in absolute sync with the structural changes within the economy - in agriculture, industry and the economy as a whole. The change from traditional to a modern market economy, from laissez-faire to deliberate planned development, from unorganized to organized production, from unregulated to regulated relations of production, from labour to capital intensive technology, and the intensification of socio-economic inequalities, all have had an impact on the employment situation. In this flux, women being a vulnerable group with fewer avenues open to them, had been affected more adversely than men.10 Though educational opportunities did expand in the post-independence period and in the period under consideration, it was relatively slower among women, particularly at the primary and secondary levels. The rate of expansion was much faster at the level of higher education, and was the virtual monopoly of the middle class, particularly the urban middle class in the case of women.11

The cumulative effect of an unprecedented famine, the communal riots and the partition of India was that education in West Bengal could never really add to the share of growth of revenue or in the progress of revenue expenditure that some other departments had been able to do. Thus, if expenditure on Education reached the peak of 12.1% of the total revenue expenditure which was 12.76

9 Ibid
11 Ibid,p.216
crores in 1938-39, it came to share only 7.1% of the total of such expenditure, viz., 42.41 crores, in undivided Bengal in 1946-1947 under the Muslim League regime. The new government claimed that the downward trend of expenditure on Education had not only been arrested but that Education was steadily recovering lost ground as its share in the total revenue expenditure had risen from 7% to 9% by the latter part of 1947-48.\textsuperscript{12} As far as the improvement of the post-graduate departments, science teaching, research work including expansion of the laboratories of the University Science College were concerned, a sum of Rs.4,74,000 was provided in the Budget estimates for 1948-1949 as earmarked for the purpose. To meet the deficit in the Calcutta University’s budget, another sum of Rs.14,64,000 was paid to the university during that year as against Rs.8,30,544 only paid in the previous year.\textsuperscript{13}

The demand for girls’ collegiate education was also sought to be met at this time by proposing to render substantial assistance to the establishment of two non-government colleges, one in the Burdwan Division at Hooghly and the other in the north at Jalpaiguri.\textsuperscript{14} As early as April 1949, at the 24th session of the West Bengal College and University Teachers Conference, the Principal of Ashutosh College Someswar Prasad Mookherjee recommended the abolition of separate departments for girls and boys in colleges and described segregation of girls

\textsuperscript{12} Proceedings of the West Bengal Legislative Assembly, Fifth session (Budget), 1949, p.73

\textsuperscript{13} Proceedings of the West Bengal Legislative Assembly, Fifth session (Budget), 1949, p.75

\textsuperscript{14} Proceedings of the West Bengal Legislative Assembly, Vol. V No.2, Fifth session (Budget), 1949, p.74
from boy students as ‘harmful.’ This was an issue already addressed to by the Bhore Committee, just on the eve of independence in 1946, when the committee categorically supported the study of girls in co-educational medical colleges, with a view to making the lady doctors competent in their private practice and improving the quality of treatment of patients by them.\(^\text{15}\) It was around this time that Dr. Shyama Prasad Mookherjee admitted that there had been a remarkable increase in the number of women students in recent years and their success in various competitive fields of academic activity were indeed gratifying. He did not believe in any kind of restriction on women’s education and advocated grant of liberal funds and research facilities to them. He also pointed out to the incredibly low amount of money that was being spent on education by the state government and compared it with other states such as Bombay, Central Provinces and Madras which spent 17\%, 15\%, 14\% on education respectively. West Bengal in contrast, he lamented, despite having the largest number of students spent only 9 per cent.\(^\text{16}\) This gap continued to feature in the educational policy of the state – a fact which was time and again highlighted by the opposition party members.


\(^\text{16}\) Amrita Bazar Patrika, Reel No.13, April 16\(^\text{th}\),1949,p.4
The government stand was that there was a progressive increase in expenditure on education between 1949-1953 as proved by the relation to revenue receipts which had increased from 7.87% to 11.85% in the budget of 1953. The percentage of expenditure on Education to total expenditure on departments other than revenue-earning departments had increased from 11.3% in 1950-51 to 14.9% in that year’s budget. The expenditure on education was the second largest amongst non-revenue earning departments, the first place being taken by police. 17 But the opposition party criticized the government in its budget session of 1953 for its disproportionately low expenditure towards non-government colleges in comparison to its expenditure on government colleges and also pointed out that although there had been some increased provision for colleges for women considering that women were going in large numbers for university education, the expenditure on women’s colleges was still very low in comparison with the expenditure on men’s colleges. 18 The expenditure on the aided colleges for women decreased while that of unaided colleges for women increased. This was due to the fact that one college for girls did not receive any grant during the period of report. 19

The Vice-Chancellor, of the University of Calcutta Dr. J.C. Ghosh, in the Annual Convocation of Calcutta University in 1955, argued that the problem of women’s

17 Proceedings of the West Bengal Legislative Assembly, 1953 p.426
18 Proceedings of the West Bengal Legislative Assembly, Seventh session, (Budget, 1953), Vol.VII No.2p.426
19 Report on the Progress of Education in West Bengal-for the year 1953-54,p.25
education in Calcutta was being seriously tackled. As early as 1955, an Asian Lawyer’s Conference in Calcutta had debated on the status of women in Asia. It was attended by women representatives of countries from Burma, Australia, New Zealand, Egypt, Japan, Ceylon and India. Mrs. Ai Kume of Japan accepted the fact that legal equality of men and women had been almost completely recognized but the feudalistic structure of the family being still strong the masses were still unaware of these changes. They argued that the guarantees in the Indian Constitution and reform in marriage and family laws would lose all their value unless women had proper education to realize their rights and economic independence to assess them. The change in the mood was reflected in a mass demonstration organized by the West Bengal Committee of the National Federation of Indian Women led by Communist party MLA Sm. Manikuntala Sen near the Assembly House. She vouched for greater allocation in the budget estimates to meet the growing demands of women’s employment, setting up of centres in towns and villages to register the names of women willing to work, integration of women’s employment schemes in the Second Five-year Plan and legislation to stop retrenchment.

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21 The Statesman, Calcutta 1955, Jan.28th, p.10
22 The Statesman, Calcutta Feb. 9th, 1955, p.5
3.1 The demand for science education among girl 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 girls’ 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 girls’ 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

23 Minutes of the Syndicate, University of Calcutta, , Part III, 27th June 1952, No.31, p.1322
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.24 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.25

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. Dr. Roy who shouldered the responsibility of the Honourable Minister-in-charge of Education as well, declared that his

24 The Statesman, Calcutta Aug. 2nd., 1955, p.10
25 Ibid
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 type 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.26

These measures were not enough to accommodate the rising number of students, both male and female. 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

26 The Statesman, Calcutta Aug.2nd., 1955, p.10
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 post-graduate 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

27 West Bengal Legislative Assembly, Proceedings, 1955 p.269

28 West Bengal Legislative Assembly Proceedings, Vol. XVII, NO.2, 1957, p.277

29 Ibid p.306

30 West Bengal Legislative Assembly Proceedings, Nov.25th, 1956 (Nineteenth session,)p.8 ,See also The Statesman, ,p.11

31 The Statesman, Calcutta Nov.25th, 1956, p.11
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.\textsuperscript{32}

In the mid-1950s, a provision of Rs. 14,05,000 was made in the education budget proposal for the improvement of non-government 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.\textsuperscript{33} The same was extended to the students at the university level as well.\textsuperscript{34} 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

\textsuperscript{32} West Bengal Legislative Assembly Proceedings February –March 1955, 22\textsuperscript{nd} session, Vol.XXII No.1, p.5

\textsuperscript{33} West Bengal Legislative Assembly Proceedings June-August 1958 (Twentieth session), Vol.XX, No.1, p.371

\textsuperscript{34} Report on the Progress of Education in West Bengal-for the year 1953-54, p.25
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.35

Merit was prioritized while admitting students to the research programme. This was well complimented by Dr. Priyadarjan 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.36

Official correspondence of the period, between the University Grants Commission and the Registrar of the Calcutta University proved that the former on behalf of

35 Minutes of The Syndicate, University of Calcutta, Part I, 13th Jan.,1948, No.3,p.108

36 West Bengal Legislative Assembly Proceedings, June-August 1958 Twentieth session, Vol.XX, No.1, p.383
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 was 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

37 Minutes of The Syndicate, University of Calcutta 1956, Part I ,p.64

38 Minutes of The Syndicate, University of Calcutta , 12th Jan1957 No.23.(Proceedings of the Steering Committee, For the Centenary Celebrations in the University of Calcutta.) p.350
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. 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.  

3.2 Affiliation in science subjects particularly for Girls’ Colleges and grant of funds at the under-graduate level

In the immediate aftermath of independence, there had been a continued demand for the core sciences like Physics, Chemistry, Mathematics along with Geography and Biology among the female students situated in and around Calcutta. This was clearly indicated by the application forwarded by the Principal of Gokhale College, asking for an extension of affiliation in the core science subjects up to the Intermediate Science standards. Another reputed women’s

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41 Minutes of The Syndicate, University of Calcutta, Part I, 13th Feb 1948 ,No.9,p.464
college, the Victoria Institution also applied for extension of affiliation of the college in the basic sciences such as Physics, Chemistry, Mathematics, as well as the biological sciences like Zoology and Botany up to the B.Sc. standard from the session 1956-57. Eminent academicians such as Dr. Ashima Chatterjee, Dr. Ilabanta Banerjee and Sri Durgadas Mukherjee comprised the team of Inspectors appointed by the Calcutta University to look into the matter. They submitted their report granting extension of affiliation of the aforesaid subjects to the respective colleges.\(^{42}\) There were several women’s colleges, however, which did not apply for affiliation in science subjects at the under-graduate level till the mid 1950s, like Deshbandhu College for Girls and several others within the city. Colleges like the Muralidhar College for Girls, had not been granted affiliation in science subjects at the Honours level because of its inadequacy in laboratory facilities which was accentuated by a space crunch.\(^{43}\)

1957 did, however, witness a spurt in the grant and extension of affiliation in science courses up to the Honours standards in many non-government colleges outside the city, such as the Suri Vidyasagar College, Burdwan Raj College, Victoria College in Cooch-Behar, Vivekananda College, Barisha, and Tamralipta Mahavidyalaya to name a few.\(^{44}\) A reputed girls’ college, Bethune College was granted extension of affiliation in the basic sciences such as Mathematics and

\(^{42}\)Minutes of The Syndicate, University of Calcutta, Part I, 14\(^{th}\) Jan 1956, No.3, p.224

\(^{43}\)Minutes of the Syndicate, University of Calcutta, 15\(^{th}\) Sept 1956 Pt.III No35 pp.597, 599, 601 and Minutes of The Syndicate, University of Calcutta 18\(^{th}\) Dec.1957, No.35, p.641

\(^{44}\)Minutes of the Syndicate, University of Calcutta, Part III, 17\(^{th}\) Sept 1957 No29, p.601
Chemistry in the year 1957, apart from the biological sciences like Botany and Zoology up to the B.sc. Pass Course standards that it enjoyed earlier.45

Few co-education colleges in the outskirts of the city like Brahananda Keshab Chandra College in Bon-Hooghly and the Dinabandhu Andrews College, Vaishnabghata, Gurudas College at Narkeldanga, and a women’s college Sarojini Naidu College in DumDum applied for extension of affiliation in Physics, Chemistry and Mathematics at the B.Sc. Pass Course standards from the session 1957-58. The Gurudas college was denied extension of affiliation in these subjects on the ground that the college lacked the necessary staff and equipment in the laboratories.46

At the official policy level of the state, the Director of Public Instruction proposed affiliation of a government sponsored women’s college from the session 1959-1960. The college was proposed to be affiliated in the core sciences, Mathematics, Physics and Chemistry up to the B.Sc. standards. Two other women’s colleges, the Victoria Institution for Girls’ was granted extension and affiliation in Chemistry, Botany and Zoology at the B.Sc. Pass Course standards from the session 1959-1960. The inspector of colleges, however regretted his inability to recommend the college for extension of affiliation in Zoology up to the B.Sc. Honours standard unless a separate laboratory was provided for

45 Minutes of the Syndicate, University of Calcutta. 17th Sept 1957, No 29 p.56, and Minutes of the Syndicate, University of Calcutta 4th Jan 1958, Part I, No I, ,p.15

46 Minutes of the Syndicate, University of Calcutta, Part III, 13th July, 1957, No.22,p.87
Zoology Honours.\textsuperscript{47} The Government sponsored women’s college at Rashbehari Avenue, later known as Basanti Devi college, was granted affiliation in Physics, Chemistry and Mathematics up to the B.Sc. Pass Course standard.

The Secretary of the women’s department of Surendranath College, which was opened in 1947, prayed for separate affiliation of the Women’s department under the name of Surendranath College for Women, with a separate Governing Body and a separate Principal.\textsuperscript{48} This was definitely an indicator of the rising demand for collegiate education in these subjects among women. It also signified the dispersal and filtration of education across all sections of society at the collegiate level by the end of the Second Five Year Plan period.

Applications were also received from the Secretary of the Governing Body of Asutosh College, requesting the Calcutta University to consider a separate affiliation for the women’s department of the college under the name and style of Asutosh College for Women.\textsuperscript{49} A similar request to grant a separate affiliation for the women’s section of the Vidyasagar College was also considered by the Syndicate. It was resolved that although affiliation up to the Honours standard

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\item \textsuperscript{47}Minutes of the Syndicate, University of Calcutta Part II, 25\textsuperscript{th} April, 1959, No.13, p.146
\item \textsuperscript{48}Minutes of the Syndicate, University of Calcutta, Part III, 25\textsuperscript{th} July 1959, No.30,p.392
\item \textsuperscript{49}Minutes of the Syndicate, University of Calcutta, Part I, 15\textsuperscript{th} Feb, 1958, No.6,.p.343
\end{itemize}
would be granted for Botany, for core subjects like Physics, Chemistry and Mathematics affiliation would be granted up to the pass standards only.\textsuperscript{50}

On the one hand this reflected the concern and growing need to facilitate and accommodate women’s demand for higher education, to which the administrative body of the colleges were responding, on the other hand, it exposed the structural inadequacy of several of the colleges that lacked the basic infrastructure like space or well-equipped laboratories to provide for the special requirements of these subjects at the Honours level. The Faculty of Science of the University of Calcutta proposed the name of Sm. Mira Duttagupta a postgraduate in Mathematics and Principal of Vidyasagar college for election to the post of Added Members in the Faculty for the year 1950-51.\textsuperscript{51} This was significant considering the fact that the domain of science was then strictly considered to be the ‘male bastion’ and her nomination to the administrative post was thus special and at the same time a reflection of the fact that the gender bias in the core sciences was at last weaning away. It may also be regarded as an attempt to break away from the past mould. \textsuperscript{52}

An elaborate discussion was made by the Minister-in-charge of the Department of Education, the Honourable Rai Harendra Nath Rai Chaudhuri as to the efforts made by the state government towards promotion of collegiate education. At the

\textsuperscript{50}Minutes of the Syndicate, University of Calcutta, Part II, 1\textsuperscript{st} June 1959, No.19, p.633
\textsuperscript{51} Minutes of the Syndicate, University of Calcutta. 1950, Part II, p.50, Sept.1951,Minutes of the Faculty of Science(Special), No.2, The 6\textsuperscript{th} March,1950,p.53
\textsuperscript{52}Minutes of the Syndicate, University of Calcutta, Part III, 13\textsuperscript{th} July,1957, No.22, ,p.87
end of the third year of the Second Five Year Plan, the number of colleges had risen from 51 in 1946-47 to 113 in 1958-59 with a total enrolment of 1,18,186 and the state government had to contribute Rs.72,61,000 towards the direct expenditure on colleges as against Rs.14,20,224 in 1946-47.

The government was trying to meet the demands for the development of collegiate education apart from the normal cost of the same, to enable the colleges to conduct three year degree courses and to provide grants to match the grants made by the University Grants Commission towards the cost of the revision of the salaries of college teachers. A further provision of Rs.80.87 lakhs was made in the budget for improvement of colleges and for the introduction of the three year degree course.

Apart from the statutory grants made over to the Calcutta University a provision had also been made in the state budget for matching grants to the Calcutta University meant to accelerate the development of University Education in West Bengal. The Jadavpur University was to receive a sum of rupees 17,69,000 and rupees 87,98,000 had been provided for the establishment of the Burdwan and Kalyani Universities. Altogether a demand for rupees 31,00,000 was included in the total demand for grant under this head for financial assistance to the existing Universities and for the establishment of new universities and a separate demand of rupees 81.23 lakhs was also made.\textsuperscript{53} The Governor in his address to the joint-

\textsuperscript{53} Proceedings of the West Bengal Legislative Assembly, 25\textsuperscript{th} session, February-April, 1960, p.6
sitting of the Assembly declared that the government had to cope with the problem of increased roll strength in the colleges. Eight sponsored colleges had been raised to the degree standard in Arts and Sciences. To relieve the overcrowding in Calcutta colleges, three new colleges had been established on sponsored basis. Out of a total of 120 Arts and Science colleges, the number of sponsored colleges had risen to 41.\textsuperscript{54} The total number of colleges for boys and girls had also gone up from 130 in 1950-51 to 154 in 1956-57.

The demand for higher education was so much on the increase that the facilities which could be offered by the colleges and the Calcutta University were proving too inadequate to cope with the growing numbers particularly in respect of postgraduate classes.\textsuperscript{55} In order to provide greater facilities to the ever-growing student population in West Bengal and to prevent overcrowding within the jurisdiction of the Calcutta University, the 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 West Bengal whose jurisdiction would extend over the districts of Darjeeling, Jalpaiguri, Cooch-Behar, and Malda.\textsuperscript{56} Apart from the usual Humanities and Science subjects, the proposed University was expected to provide facilities for teaching of special subjects and for the teaching of professional courses like

\textsuperscript{54} Proceedings of the West Bengal Legislative Assembly, 25\textsuperscript{th} session, February-April, 1960, p.5

\textsuperscript{55} Proceedings of the West Bengal Legislative Assembly, 30\textsuperscript{th} session, Sept.1961, p.193

\textsuperscript{56} Proceedings of the West Bengal Legislative Assembly, 30\textsuperscript{th} session, Sept.1961, p.193
engineering, medical and the like, primarily intended to serve the five northern districts of North Bengal.\textsuperscript{57} In this case the need to provide technical education became a concern of the state government and this was in tune with the Central government’s policy on higher education.

The problem of employing qualified teachers for post-graduate classes in the University of Calcutta continued to plague the prospects of higher education in West Bengal. This was an obvious fallout of the inordinately low salaries that were offered to the teaching staff at the University level.\textsuperscript{58}

During the Third Plan an amount of Rs. 36 crores had been provided for the expansion of educational facilities. The number of colleges in the state had more than doubled since the attainment of independence. The State government had to accept additional financial burden for the development of college education in the State as the Calcutta University had adopted the three year degree course on the terms laid down by the U.G.C.

The University Grants Commission’s decision to bring down the enrolment of the big colleges to 1500-2000 students only, brought about the establishment of thirteen new colleges in and around Calcutta. Three more colleges were proposed to be established within and outside the city which were expected to function from the next academic session. The government was of the opinion

\textsuperscript{57} Proceedings of the West Bengal Legislative Assembly, 30\textsuperscript{th} session, Sept.1961, p.193
\textsuperscript{58} Ibid p.196
that if more funds were available one or two more colleges would have to be
established with a view to facilitating the reduction of students in the big
colleges.\footnote{Proceedings of the West Bengal Legislative Assembly, 35th session, March 1963, p.817} While education in Calcutta readily welcomed the reported move by
the Central Government to relieve overcrowding in colleges, the state
government felt that the financial implications of this scheme might be too
staggering. The Union Government offered to meet half the capital and recurring
expenditure, the balance was to be contributed by the state government. The
need to disperse the colleges arose as a result of overcrowding in Calcutta
colleges. According to reports over 50,000 students were distributed in the 30
odd colleges in the city. Of these, over 35,000 students were concentrated in the
five major colleges in the city. To cope with numbers, many colleges ran
shifts and some opened branches as well.\footnote{The Statesman, Calcutta Nov.11, 1956,p.9}

So far as the spread of education at the collegiate level was concerned, efforts
were made to accommodate the rising demand but fleeting references to the
need for women’s education were made by a member of the West Bengal
Legislative Assembly, Sambhu Charan Ghosh who referred to the fact that there
could not be educational development in this country unless women were also
given due chances to access higher education as they had already broken the chains imposed upon them by a reactionary society.61

The need to include a greater number of women in building up of a new India was a dominant note in the speeches of the leading politicians of the time. In an A.I.C.C. meeting held at Beleghata in Calcutta in 1956, Pandit Nehru had remarked that the status of women was the best measure of the progress made by a country in cultural and other spheres. He had admitted that India had attained political freedom and that women too had to play their role in solving the social and economic problems with which the nation was confronted. He believed that so long as women remained in bondage, no social progress would be possible. He cited the Chinese case and justified that China had made the greatest progress in the social sphere as it had ensured emancipation for all its women.62 Greater representation of women in State Legislatures, Parliament and other organizations was also advocated by Mr. Nehru. He referred to the good work being done by the Social Welfare Board in giving assistance to women’s welfare organizations. The national leaders were content with the turnout of women in large numbers at the meetings. Social issues such as prevention of child marriage and sati and eradication of ignorance were the chief concerns

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61 Proceedings of the West Bengal Legislative Assembly, Vol.XXXV No.1, 35 th session, Feb.-April 1963, p.825

expressed by leaders like the Congress President Mr. Dhebar and Mrs. Indira Gandhi at the gathering.\textsuperscript{63}

That grass-root ignorance could only be tackled by women was strongly defended. But whether they could be economically empowered was a question that was yet to be confirmed, although the print media at that time was vocal enough about the resurgence of Bengali women since the thirties. A reputed newspaper even went to the extent of showcasing the fact that apart from economic desperation, a new desire for a better standard of living led Bengali women to take up the challenges of education, service and professional careers at all levels for the past two decades.\textsuperscript{64}

At the matriculation level, the rise in the case of women to men in the period between 1938 and 1946 was over 1000\% for women as compared with 250\% for men. But despite all legislation the scope of employment for women was limited. An overwhelming majority of them preferred teaching. Those seeking employment in offices as typists, stenographers, receptionists and telephone operators also constituted a large number. The number of women registered with the National Employment Service, West Bengal showed that only a handful was absorbed. Again there were several women seeking employment in schools

\textsuperscript{63} The Statesman, Calcutta, Nov.11\textsuperscript{th}, 1956, p.9

\textsuperscript{64} The Statesman, Calcutta, Dec.4\textsuperscript{th}, 1956, p.12
and colleges whose names had been seldom registered in the Employment Directorate.65

3.3 Scholarships and D.Phil degrees for women recipients in core science subjects

A review of the list of recipients of scholarships and medals during the period of my investigation would reveal that at the Intermediate Science level, recipients of several prestigious medals and prizes were girl students. Sudha Basu, a non-collegiate student of City College was awarded the Rai Radhikaprasanna Mookherjee Bahadur C.I.E. prize, Lalita Bhaduri secured the Nagendra Gold Medal from Presidency college, the Roxburgh Gold Medal was awarded to Lalita Sarkar of Asutosh College, apart from this, Toshini Ghosh from Berhampore K.N.College was awarded the Nawab Abdul Latif and Father Lafont Science Scholarship.66

The Premchand Roychand Studentship in Science for the year 1951 was awarded to Sobhana Dhar, a student of the Physics department in the University of Calcutta. Tuhina Ghosh and Purnima Sengupta were among others who were awarded the D.Phil. degrees in Pure Physics in the first twenty years of India’s independence.67 Sm. Nilima Basu was another scholar to be awarded the D.Phil

66 Minutes of the Syndicate, University of Calcutta, 1952,Part III, p.404
degree in Pure Physics at about the same time.°° Ila Dutta and Arundhati Ghosh were appointed Associates of the Institute of Nuclear Physics at this time.°° Dipti Mitra was admitted to the D.Phil degree programme in Pure Physics after June 1960.

This speaks volumes on the excellence attained by the women students in the core sciences like Physics, not to forget Ashima Chattopadhyayy the first Bengali lady to reach an enviable height in another core discipline of science, Chemistry.°° Physics seemed to be a favourite subject for women scholars to excel in. Professor Satyendranath Bose recommended the name of Miss Lilabati Ray for the prestigious Khaira Research Scholarship under him which was subsequently accepted by the Syndicate.°° Manisha Basu was another scholar who was awarded the D. Phil Science degree in Chemistry.°° While still a research scholar she joined the West Bengal Education Service against a temporary vacancy as Professor of Chemistry, thus juggling both the worlds of higher studies and a career in teaching. Sephali Guha and Jayanti Nagchaudhuri

°° Minutes of the Syndicate, University of Calcutta, Part IV, 9th Nov 1957, No.31, p.379
°° Minutes of the Syndicate, University of Calcutta, Part I, 10th Feb 1958, No.5, p.315
°° Minutes of the Syndicate, University of Calcutta, Part I, 7th Feb.,1959, No.4,p.316 See also Proceedings of the D. Phil Committee in Pure Physics, 26th June, 1959 p.241
°° Minutes of the Syndicate, University of Calcutta, Part III, 1952,p.119, (See Letter dt 18th June, 1952 from Professor S.N. Bose stating that he had issued a Notice on 15th May 1952, inviting applications for Khaira Research Scholarships under Khaira Professor of Pure Physics)
were among the others who obtained D.Phil. degrees in Pure Chemistry. They were followed by Roma Ghosh, Alaka Bhattacharya and Sujata Sen who also obtained the degree in 1957. Rama Banerjee was awarded the D.Phil. degree in Pure Chemistry in 1959. The prestigious Nagarjuna Prize in Chemistry was awarded to Anima Debi for the year 1953. She was the only female candidate to have achieved this distinction, out of the three candidates who had submitted their theses in that year. D.Phil. degrees were earned by Anima Chaudhuri and Manjuli Ghosh in Pure Chemistry.

The first woman from Bengal and also India to have earned a prestigious D.Sc. degree in Chemistry was Dr. Asima Chattopadhyay who was appointed Reader in the Department of Pure Chemistry, at the University of Calcutta. Her appointment as the first lady teacher in the Department of Chemistry at the University of Calcutta, seemed to set new goals for the emerging new class of highly educated women in the post-colonial system of higher education. During the colonial period, the most popular professions for women were teaching,
nursing and medicine. But more often than not they had to remain satisfied with a job as a primary or secondary school teacher. But post independence India saw a major deviation in this and set new standards for the career-minded women professionals. Thus we see Dr. Asima Chattopadhyay supervising Anima Chaudhuri her first female research scholar, who joined the Victoria Institution as a Professor of Chemistry soon after the completion of her work. Subsequently, Anima Chaudhuri was admitted to the post-doctoral studies at Wayne University, U.S.A with the assistance of a 'Foreign and Research Scholarship' from the V. L.Mitra Fund. Bani Talapatra was another student who also excelled in Chemistry and became one of the distinguished students of Professor Chatterjee.

The desire for higher studies among women was a striking feature in the post-colonial study of the woman in science in Calcutta. Subsequently Dr. Krishna Kamini Rohatgi a D.Phil was appointed Honorary Lecturer in the Department of Pure Chemistry in the University of Calcutta. Sujata Sen was appointed a Research Scholar under Professor P.B.Sarkar (as Ghosh Professor of Pure Chemistry) in 1956. Again in that year Sunanda Bardhan, another research scholar was awarded the D.Phil degree in Chemistry. The same year also saw

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80 Minutes of the Syndicate, University of Calcutta, Part III, No.2, 15th June 1954, p.166
81 Minutes of the Syndicate, University of Calcutta, Part II, 7th April 1955, p.282
82 Proceedings of The Selection Committee in Pure Chemistry, in Minutes of the Syndicate, University of Calcutta 13th June, 1955, p.833
83 Minutes of the Syndicate, University of Calcutta, PartI, 17th March 1956, No.10, p.618
84 Minutes of the Syndicate, University of Calcutta, Part II, 28th April 1956,No.15, p.189
the admission of Dolly Ray and Rama Bhadra to the D.Phil. degree in Pure Chemistry. On the other hand, in 1959 Gita Dutta and Kamala R. Thatta received the D.Phil. Degrees in Pure Chemistry. In the preceding year, Abha Mitra a Lecturer in Mathematics, from the University of Patna, had approached the Calcutta University with a view to obtaining an overseas fellowship from the V.L. Mitra Fund for pursuing a Ph. D degree, but it could not be granted finally. Post-graduate scholarships, medals and prizes were also achieved by the women students in many other disciplines of science particularly between 1947 and 1959. Thus the Jogmaya Devi Gold Medal was awarded to Rekha Raychaudhuri, a student of Pure Physics for securing the first position at the M.Sc. level. Bani Sen, was awarded the D.Phil. degree in the Pure Physics in the year 1960. The continuing demand for and excellence in science subjects led the Vice-Chancellor N.K. Sidhanta of the University of Calcutta to remark that a large number of students had to be trained at the post-graduate stage, especially in science subjects. Although a majority of them were arts graduates, the number of science graduates was not negligible. He described the increase in the number of women enrolling for education as ‘something in the nature of a social revolution.’

85 Minutes of the Syndicate, University of Calcutta, Part III, 26th July 1956, No. 33, p.5
86 Minutes of the Syndicate, University of Calcutta, Part II, 25th April1959, No.13, p.211
87 Minutes of the Syndicate, University of Calcutta, Part I, 11th Jan 1958, No.2. p.99
88 Minutes of the Syndicate, University of Calcutta, 1949, p.790
89 Minutes of the Syndicate, University of Calcutta, Part I, 11th Jan 1960, p.766 See also Proceedings of the D.Phil committee in Pure Physics, University of Calcutta.1960, p.766
Thus it can be said that although the number of women scholars was less than that of men in the core sciences, their presence was being felt and appreciated by the luminaries in the field. Surprisingly, the post-graduate level in technology was marked by a complete absence of female students during this time, barring the case of Ila Ghose who was the only woman engineer to have passed out from the B.E. college in 1951. By her own admission, there were no girl students in the Shibpur college for a long time after she graduated mainly because of the fact that jobs for women were not forthcoming easily at that time in the engineering sector.

In so far as the allocation of lump grants to the Arts and Science departments, of the University of Calcutta were concerned, we see that while Rs.10,500 was allocated to the Arts departments, the Science departments had received an amount of Rs. 23,000. This was an indicator of the fact that the development of the science departments was being given special attention. Of course when it came to the question of allocation of government grants to non-government colleges like South Calcutta Girls’ College, St. Paul’s College, Victoria Institution, Women’s College, Calcutta, it was inevitable that the co-education colleges like St. Paul’s received much more for the Laboratories than that of the women’s

90 The Statesman, Calcutta ,Jan.20th 1959, p.1

91 Minutes of the Syndicate, University of Calcutta, Part IV, 14th Nov.1959,No.42, p.67

92 Interview of Ila Majumdar by the researcher dated 25.04.2016 , Calcutta

93 Minutes of the Syndicate, University of Calcutta,, 10th Dec 1951, No.73, p.702
colleges. This was a recurrent feature during the 1950s when the government grants for laboratories to the girls’ colleges like Gokhale Memorial Girls’ College, South Calcutta Girls’ College, Women’s College, the Victoria Institution were significantly lesser than that of the predominantly male Colleges in Calcutta like Asutosh College, Bangabasi College, Maharaja Manindra Chandra College, Surendranath College, Vidyasagar College and City College, despite the fact that a persistent demand for science subjects also existed in the girls’ colleges.94

By 1956, with the aid of the central government, an Institute of Nuclear Physics had been set up under the University of Calcutta and efforts to develop the Indian Association for the Cultivation of Science were also undertaken. But the need to provide employment to the good students in order to prevent national wastage was an issue that was raised within the floors of the West Bengal Legislative Assembly by an important member of the opposition, Manikuntala Sen.95 The year 1956 also coincided with a more pronounced campaign for scientific developments. This was echoed by Dr. J.C. Ghosh, member of the Planning Commission who at the first meeting of the panel of scientists set up by the Planning Commission declared that ‘modern economic development calls for


95 Proceedings of the West Bengal Legislative Assembly, Twentieth session, Vol.XX, No. 1., June-August 1958, p.385
a wide diffusion of the scientific temper of mind.’ He was convinced that an atmosphere of absolute freedom in the universities was a *sine qua non* for research in pure science to flourish. He held it the responsibility of the University Grants Commission to provide modern laboratory facilities in the universities and to make adequate grants to deserving research workers. The thrust on science education at this time also was to a great extent determined by the international developments of the time that focused on science and technology as the means to social and economic progress of a nation. The example of a capitalist nation was highlighted by him when he referred to the Rockefeller Foundation to promote research activities as well as the communist countries like Russia which had greater experience of planned economy than any other country and which trained students for research careers in science, technology, agriculture, medicine and educational facilities at state expense in the year 1953.96

The initial years of the planning period in the aftermath of independence as is already known witnessed great emphasis on scientific research than on engineering as it was seen as the key to a country’s progress and development in economic and social terms. Forays were being made in the field of engineering research as well particularly in those branches of engineering such as Chemical,
Biological and Public health engineering in sharp contrast to the earlier thrust on Applied Physics, Civil, Mechanical and Electrical engineering of the 1930s.\textsuperscript{97}

The Nehruvian ideal of shaping a ‘new India’ was the guiding spirit behind the formulation of his policies as far as science education in India was concerned. This nationalist approach was time and again reflected in his various addresses to the student community. Addressing the Indian Science Congress Association in Calcutta at the Bengal Engineering College, Sibpore, in the year 1956, Mr. Nehru impressed upon the students the need to regard their work not only as a means of ensuring their livelihood but also of building up the ‘new India’ of his dreams.\textsuperscript{98} The academicians were of the view that facilities and incentives for research studies in Calcutta University were not compatible with the actual pace and demand for it.\textsuperscript{99} Decentralization of Calcutta University, greater assistance and authority to the colleges for their improvement were suggested. The Chairman of the University Grants Commission, Mr. C.D. Deshmukh felt that though the provision in the Second Plan for education had been increased, it was still proportionately less than the provision made in the First Plan.\textsuperscript{100} It was

\textsuperscript{97} The Statesman, Calcutta Dec.21, 1956, p.10
\textsuperscript{98} The Statesman, Calcutta. Jan.15, 1957, p.1
\textsuperscript{99} The Statesman, Calcutta May 3, 1957, p.10
\textsuperscript{100} The Statesman, Calcutta July 2, 1957, p.4
believed that diversification of secondary education and the provision of more
technological institutions would spur industrial and technological developments.

3.4 Women in a less trodden path: Technical Education

A healthy cooperation between industry and technical institutions was regarded
as primary condition for the scientific and technological developments in the
country. This became the watchword from the late 1950s and marked a
perceptible shift in the temper of the country’s economic developmental policies
since independence. In his convocation address at Roorkee, C.D.Deshmukh
made it clear that facilities for post-graduate work and research which were
practically non-existent in 1947 would expand considerably by 1961 and that
1000 seats would be available for advanced studies in the technical
institutions.\(^\text{101}\) Though a merging of the scientific and the technical worlds were
being made, very few women could make it. It is interesting to note that,
Bengal’s first woman engineer Ila Majumdar graduated from the Shibpore
Engineering College in Bengal and Kesari Malati became the first woman
engineer to pass out of Roorkee University in its 110 year old history. At about
the same time, the number of women who took to the technical fields remained
so less that Deshmukh came up with the idea that the university would have to
relax the qualifying standard for women.\(^\text{102}\) The reasons behind the

\(^{101}\) The Statesman, Calcutta 28\(^{\text{th}}\) Nov.1957, p.8

\(^{102}\) Ibid
marginalization of women in technical studies did not figure in the political debates of the time either at the central or the state levels.

In the Proceedings of the Council of Post-graduate teaching in technology at the Calcutta University in 1952, Professor S.K. Mitra had proposed the creation of the post of a whole-time paid Secretary to the Council in the same grade as that of the Secretaries to the Councils of post-graduate teaching in Arts and Sciences. He argued that the department of Technology was rapidly expanding and would expand more in the near future. Although there were separate Boards of Studies in the three branches of Technology, the secretary to the post-graduate science council would find it impossible to carry on the work in the near future.103 He pointed out that inspection of colleges to grant affiliation and extension of certain subjects at the collegiate level of education was a colonial practice. The Calcutta University Inspector of Colleges, Dr. Triguna Sen and Sri N.N. Sen recommended in their report of inspection of the Bengal Engineering College that the college be affiliated to the Post-Graduate course for the degree of Master of Engineering under Chapter LII-D of the Regulations, with effect from the session 1954-55 and it was resolved that in extension of the affiliation already granted, the Bengal Engineering College, Sibpur, would be affiliated to the Master of Engineering (M.E.) standards with permission to present candidates for the examination not earlier than 1954. The College was affiliated in Electrical Engineering to the M.E. standard with effect from the year 1957 and not

103 Minutes of the Syndicate, University of Calcutta, Pt III, No.5, 1952, p.737
earlier.\textsuperscript{104} Scholarships such as the Radhikamohan Education Scholarship for students with a science background and with some previous training in Mechanical Engineering or in Chemical or some other Technical Industry were provided. But this smacked off a casteist nature as it was open only to Bengali Brahmins, preferably belonging to the \textit{Varendra} class.\textsuperscript{105}

The year 1958 proved to be a milestone in so far as India’s science and technology were concerned as the first resolution on the scientific policy of India was adopted by the government of India and was placed before both the houses of the Parliament. The Scientific Policy Resolution of the Government of India was a re-statement of the policy pursued by the Government for the advancement of science and technology. With its emphasis on science education, the Resolution recognized that the ‘dominant feature of the contemporary world was the intense cultivation of science on a large scale and its application to meet a country’s requirements.’\textsuperscript{106}

A scheme of Merit Promotions and Advance Increments had been approved by the Government of India to provide encouragement to scientific personnel working in various government departments. This scheme was applicable to all

\textsuperscript{104} Minutes of the Syndicate, University of Calcutta, Part II Proceedings of the College Committee (Professional) for 1955-56, dt.10\textsuperscript{th} May, 1956 p.261

\textsuperscript{105} Minutes of the Syndicate, University of Calcutta, Part III, 10\textsuperscript{th} July 1959, No.30, p.421

scientific personnel working in the Council for Scientific and Industrial Research, Defence Research and Development Organisation. Besides the earlier named institutions, the Indian Agricultural Research Institute, the Geological Survey of India, the Zoological Survey of India, Botanical Survey of India and the Department of Anthropology also featured within this scheme.¹⁰⁷ The government had resolved to offer good conditions of service to scientists, to associate them with the formulation of policies and to implement all necessary steps to promote scientific research and training required by the personnel.¹⁰⁸

Thus during the second Five Year Plan period, the Union government was keen to develop higher Scientific Education and Research in the state. In a letter to the University of Calcutta, the University Grants Commission stated that on the recommendations of the Visiting Committee appointed by the Commission for assessing the needs of Calcutta University, grants were sanctioned for the recurring and non-recurring expenditure for the implementation of schemes, pertaining to the Development of Higher Scientific Education and Research.¹⁰⁹

The University Grants Commission adopted measures to encourage higher scientific education and research in Indian universities. A pool had been created for the temporary placement of well-qualified Indian scientists and technologists


¹⁰⁸ The Statesman, Calcutta, March 14th, 1958, p.14

¹⁰⁹ Minutes of the Syndicate, University of Calcutta, Part I, 28th Feb, 1959, No.8, (See also letter No.5.4-10/58(5) dt.19th Jan.,1959 from the UGC to the University of Calcutta) p.635
returning from abroad. Twenty-five percent of the vacancies in this pool were available for Indian students with an outstanding record at the Indian universities. There were, however, no proposals for reservation of seats for women.

That socio-economic changes, scientific and technological advancement presupposed an overhauling of the system of technical education in the country, was well accepted by the policy framers of the time. Although the first technical institution in India, the Bengal Engineering College was established well over a century ago in 1857, technical education in India remained almost static for a long time. This condition was reflected in a large measure in the lack of scientific and technological progress of the country for many years. It was only when the second World War broke out that the need for technicians for the war efforts was felt and some attention was paid to the problem of technical education and training in the country.

This was admitted in the Report of Education in India-1947-1961, which in a way categorically discredited the colonial government for not attempting to promote technical education in the colony. It was admitted that before 1947, there was hardly any institution which provided facilities for post-graduate studies and

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111 Ibid, p.14
research in engineering. Indian students had to go abroad for advanced training.
The post-colonial period witnessed the establishment of institutions where facilities for post-graduate studies and research work were available in such fields as Power Engineering, Dam Construction and Irrigation Engineering, Advanced Electronics, Aeronautical Engineering.\textsuperscript{112} Needless to say, these fields were geared towards the promotion of science and technology for the progress of the country and occluded the possibility of participation of women in such fields, considering the societal conservatism of the times.

Proposals were discussed at the All-India Council for Technical Education, established in 1946, to advise on all aspects of improvement and coordinated development of technical education in the country.\textsuperscript{113} It included a special scheme sponsored by the government of India for the establishment of eight engineering colleges with a total enrolment capacity of 2000 students a year and 27 polytechnics with a total enrolment capacity of 4020 students in different parts of the country. The scheme was designed to extend technical education during the current Plan period to about 11,000 seats for degree courses and about 22,700 seats for diploma courses. It was around this time that two

\textsuperscript{112} Ibid, p. 16

colleges for the eastern region at Durgapur and Jamshedpur were proposed to be set up.\textsuperscript{114}

Thus the Nehruvian post-colonial emphasis on science had by this time shifted to technology as well. He harped on the need to increase the number of technocrats to help the country, make rapid strides on the road to progress. This thrust on science and technology was reflected in the Proceedings of the Committee for consideration of the possibilities of establishment of a college of Engineering and Technology under the University of Calcutta. On the lines of Dr. S. Radhakrishnan, the then President of India, however, did not fail to highlight the significance of studying humanities for an all-round character building. \textsuperscript{115}

The University Grants Commission, which was set up to look into the requirements of higher education, was keen to assist in the improvement of standards of the affiliated colleges by making grants to them. A sum of Rs.6,88,000 was paid by it to the University of Calcutta towards the upgradation of salaries of its college teachers for 1957-58.\textsuperscript{116} The sanctioning of grants, however, was limited to the big colleges only which agreed to reduce the strength of the student to 1500 within a period of about five years. The choice of colleges such as Ashutosh College, Charu Chandra College, City College,

\textsuperscript{114} The Statesman, Calcutta, March 14\textsuperscript{th}, 1958, p. 3

\textsuperscript{115} Minutes of the Syndicate, University of Calcutta, Part III, 18\textsuperscript{th} July 1959, No.29, p.199

\textsuperscript{116} The Statesman, Calcutta, April 14\textsuperscript{th},1959,p.7 ( The Statesman reported the statement of the Union Education Minister, Dr. K.L.Shrimali in a written reply to Mr. Subodh Hansda and Mr. S.C. Samanta in the Lok Sabha)
Vidyasagar College, Rishi Bankim College, Naihati and Narasingha Dutt College, Howrah were indicators of the fact that the lion’s share of the grants were allocated to the predominantly male colleges.\textsuperscript{117} In the case of the engineering colleges, the Commission attempted to increase the number of seats available in them. The discriminatory practice of sharing 50% of the expenditure for paying the salaries of teachers in the case of men’s colleges and 25% in the case of women’s colleges was also a grim reminder of the fact that despite constitutional guarantee of equality of opportunities for both men and women, the ground reality was different.\textsuperscript{118}

3.5 Recommendations of the Durgabai Deshmukh Commission

Within a decade after India’s independence the change in the employment condition of the Indian women started finding expression in the print media which articulated that the Indian working women’s problems were no longer constitutional or legal but entirely sociological. In what may be considered a launching pad for the movement of the rights of employed women in the post-colonial period in India, Mrs. Durgabai Deshmukh, Chairman of the National Committee for Women’s Education, urged the Central government to include women in the category of backward classes so that they could be entitled for substantial grants for the expansion of their education.

\textsuperscript{117} The Statesman, Calcutta, April 18\textsuperscript{th}, 1959, p. 5

\textsuperscript{118} The Statesman, Calcutta, Feb. 16\textsuperscript{th}, 1959, p. 7
Durgabai, a young widow had subsequently married C.D. Deshmukh, who was then the Chairman of the University Grants Commission. She may be regarded as one of the few women pioneers who chose to be an iconoclast in her times. She revealed that even in the late 1950s, there was a wide disparity in the percentage of boys and girls attending schools in the country. While the percentage of school going boys was 70%, that of girls was only 32.6%. Judging from the situation, she opined that it would not be possible to provide universal primary education by 1965-66.\(^{119}\) The committee, which was appointed in May 1958 under her chairmanship, submitted its report to the government of India on January 5 1959 highlighting that the education of women should be regarded as a crucial and a very important issue for even the future years, as it would be necessary to make a bold and determined effort to face the challenges and obstacles that impeded its progress. It was only through such endeavors that the country would be able to close the existing gap between the education of men and women within a short span of time. The report recommended that adequate steps should be taken to create a special machinery to deal with the problem of the education of girls and women. Adequate special funding was also sought to be arranged for this purpose.\(^{120}\) Women were to be appointed as joint directors of the State Councils that were to be set up in charge of the education of girls and women.

\(^{119}\) The Statesman, Calcutta, Sept.23\(^{rd}\),1958, p.3

\(^{120}\) The Statesman, Calcutta, Jan.10\(^{th}\), 1959,p.5
The Durgabai Commission may thus be considered to be a landmark in the empowerment of women. As it was presided over by a woman who also had the power and administrative acumen to diagnose the basic problems that hindered the development of women’s education, it must have helped her to frame policies related to education that were best suited to the special needs of women. According to the recommendations of the commission an amount of not less than Rs.10 crores was earmarked for the education of women during the remaining period of the Second Plan in addition to provisions that already existed.  

3.6 Debates on education and employment

As far as higher education in West Bengal was concerned, the major arguments that the opposition cited was that education was in a chaotic state because the government had failed to draw up a comprehensive and integrated system of education from the primary to the university levels. This had resulted in a drop in the standards of education; a fact well corroborated by the failure of students of West Bengal at the all-India examinations. Mr. Harendra Nath Chaudhuri the minister-in-charge of education in the state assured the opposition that efforts were being on to upgrade the existing facilities of the colleges to the three-year degree course. The importance of technical and social education was also being increasingly emphasized and suitable schemes were implemented for their development.

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expansion.\textsuperscript{122} While unemployment among both men and women became a recurrent feature in the post-colonial period, at the same time there was a dearth of qualified candidates for certain types of jobs, like civil engineering for which there was no demand among girls as they chose to cluster in certain fields of engineering as opposed to the other fields.\textsuperscript{123}

The enrolment figures in the faculties of science and engineering at Jadavpur University, a premier institute for science, engineering and technology indicate that they were abysmally low in numbers at the graduate and post-graduate levels in science and engineering streams. Till 1960, there were no girl students in the Physics department of the university. It was a highly ‘gendered’ and discriminated subject at that time, till Dr. Papia Nandy was admitted to it.\textsuperscript{124} In 1958, no girl student took admission in the Mathematics department at the degree level before April of that year. As far as engineering studies were concerned, girl students showed a natural proclivity to electrical and chemical engineering rather than in mechanical or civil engineering.\textsuperscript{125} Gradually Telecommunication Engineering became a viable option among girls, but very

\textsuperscript{122} The Statesman, Calcutta Feb.26\textsuperscript{th}, 1959,p.1

\textsuperscript{123} The Statesman, Calcutta 18\textsuperscript{th} Sept.,1960,p.8

\textsuperscript{124} Interview of Papia Nandy by the researcher, dated 25.07.2012, Calcutta

\textsuperscript{125} Annual Report, Jadavpur University, From 24\textsuperscript{th} Dec.,1955 to 31\textsuperscript{st} March, 1958, Appendix G,p.51
few girls opted for it.\textsuperscript{126} The records, however, show that at the admission to the preparatory level, the number of male and female students were more or less the same. But there was an attrition in the number of girls at the degree and post-graduate levels of Science.\textsuperscript{127} There were no female candidates at the post-graduate level in the faculty of engineering and technology in 1960. But subsequently in that year, in the department of Mathematics, Tara Ghosh stood third in First Class and Smriti Kana Bhowmick stood seventh in First Class, while Dipti Ghosh and Dipti Dev secured the tenth and fourteenth positions respectively in the second class.\textsuperscript{128} Later on in 1960 Rukmimi Raman Giri stood first in the order of merit and among the list of successful candidates Ratna Dutta and Atashi Chowdhury also held a place of pride.\textsuperscript{129} The year 1960 was a benchmark in so far as women in the faculties of engineering and technology at Jadavpur University were concerned. Manju Rani Sengupta stood 9\textsuperscript{th} in the list of First Class awardees in the Chemical Engineering department. Bharati Sen and Mina Sengupta secured the third and fourth positions respectively with a First Class in Electrical Engineering (Communication Option). As far as research in Physical Chemistry was concerned, female scholars like Anima Chakraborty, 

\textsuperscript{126} Annual Report, Jadavpur University, From 24\textsuperscript{th} Dec.,1955 to 31\textsuperscript{st} March, 1958,Appendix C, p.81 and Annual Report, Jadavpur University, From 1\textsuperscript{st} April, 1959 to 31\textsuperscript{st} March, Appendix D, p.45

\textsuperscript{127} Annual Report, Jadavpur University,From 1\textsuperscript{st} April,1960 to 1\textsuperscript{st} March 1961,published by Arun Gupta, Registrar, Jadavpur University, Calcutta,p.11?

\textsuperscript{128} Annual Report, Jadavpur University,From 1\textsuperscript{st} April,1958 to 1\textsuperscript{st} March, 1959, ,p.37?

\textsuperscript{129} Annual Report, Jadavpur University,From 1\textsuperscript{st} April,1960 to 1\textsuperscript{st} March 1961,Appendix C, ,p39
Krishna Kamini Rohatgi and B. Roy had some significant contributions in their respective fields through their research publications.¹³⁰

Yet according to an International Labour Organization study made in 1970, only 17% of the professional and technical workers were women of which three-fourths were teachers. The Directorate General of Employment and Training’s data for selected professions in public and private sectors (organized) identified teaching, medical and health, clerical and related workers and telephone operators as the four occupations, where the largest concentration of women workers could be seen.¹³¹ Thus the colonial clustering of women in certain professions as opposed to others regarded as the sole preserve of men, continued to dominate the post-colonial period under consideration.

The exclusiveness of science education was sought to be diluted by popularizing science through the publication of science journals in Indian languages, the cost of which was to be partially borne by the Union Government.¹³² This step was taken largely in response to the demand for scientific and technical education not only in India but also globally. At the Tenth Consultative Conference of the Colombo Plan nations, the British and U.S. delegates were urging representatives

¹³⁰ Annual Report, Jadavpur University, From 1st April,1960 to 1st March 1961, pp. 39,42,58,61


¹³² The Statesman, Calcutta Oct.2nd,1958,p.5 (The Union Minister for Scientific Research and Cultural Affairs, Mr. Humayun Kabir, on behalf of the Union Government had increased the grant to the Indian Science News Association from Rs. 5000 to Rs. 15,000 for its journal Science and Culture.)
of South and South Asian nations to initiate a sharp increase in the training of technicians that would enable them to raise the living standards of their countries. On the occasion of the Centenary year of the University of Calcutta, the Vice-Chancellor Dr. N. K. Sidhanta referred to the need of training a large number of students at the post-graduate level, especially in the science subjects. The tremendous increase in the number of women enrolling for education was described by him as nothing short of a ‘social revolution.’

This may be considered to be a break from the colonial past that within a decade of India’s independence, women’s issues were finding a separate space, at a time when gender issues were yet to break ground and the feminist movement had not really taken off the ground. The Committee on the Differentiation of Curricula, popularly known as the Hansa Mehta Committee of 1961 debated the issue of differences in the curricula between boys and girls. Its limitations were similar to other committees and commissions of the time, as it was preoccupied with primary and secondary education issues rather than with more pertinent issues. Thus a wide disparity continued to exist in the percentage of boys and girls attending schools in the country. While the percentage of boys attending school was 70%, that of girls was only 32.6%. In such a situation Durgabai Deshmukh, Chairman of the National Committee for women’s education urged...

133 Minutes of the Syndicate, University of Calcutta, Part I, 18th Jan 1951, No.3,,p.296, See also The Statesman,Oct.22nd.1958,p.9

the Central government to include women in the category of backward classes so that they could be entitled for substantial grants for the expansion of their education or else she observed that it would not be possible to provide universal primary education by 1965-66.135

3.7 Medical Education

In this section the thrust will be on the scope of higher education and the medical profession for women, in the post-colonial scenario in West Bengal in the post-colonial period particularly in view of the fact that while the medical profession along with teaching and nursing were accepted professions for women in the colonial period within the framework of the Victorian model of 'good mother, good wife', what were the prospects of higher education and medical practice for women doctors in the period under consideration. As history would have it, breaking from the past mould was not easy and thus in the case of governance the Indians adopted in a large measure more or less the same kind of bureaucratic, top-heavy centralized machinery, though this time democratic ideals of equality, liberty and fraternity became the main guiding spirits behind the policies. The Bhore Committee Report heralded the official confirmation of western institutionalized system of medicine in India, thereby marking the end of any conflict with the indigenous systems of medicine in theory, if not totally in practice. The issues, henceforth, were no longer a tussle between the two systems of medicine, Indian (indigenous) and western

135 The Statesman, Calcutta, Sept. 23rd, 1958, p.3
(foreign) but was garnering the best of the West into an uniform, monolithic code introduced in the states of India through the Central state machinery. The thrust was on higher medical education and research in all its forms but the problems of women in medicine and their typical stereotyping in certain branches of medicine such as obstetrics, gynaecology, paediatrics as opposed to other fields of specialization remained unaddressed. The year 1961 has been taken as the exit point of the paper as in that year the second Five Year Plan came to an end and the third Plan got under way. Kothari Commission was appointed to go into all aspects of Indian education and announced its decision to increase considerably the total investment in the development of education and scientific research. It emphasized the need for quality in education, thereby justifying in a way the need to establish more medical colleges to increase the numbers of qualified medical professionals. Whether theory translated into practice will be the subject of discussion in this essay.

Historians and sociologists point out to both endogenous as well as exogenous factors that were responsible for the entry of women in the medical profession in India in the last two decades of the nineteenth century. At the endogenous level, the society was changing due to the emerging political consciousness, expanding modern education, science and technology, spreading of cultural awareness, changing economic conditions and large scale social awakening. This created a situation in which women felt concerned about their position in society, especially their role and status in and out of the family. At the exogenous level, there was a
strong impact of the process of neubremization which refers to the process of impact of the outside / alien cultures and other development on the people of India.\textsuperscript{136}

So at the turn of the century although the desirability of women’s education was accepted by most reformist middle-class families, the scope of women’s education remained circumscribed by the policies of the colonial government on the one hand and the paternalistic norms of an indigenous society on the other hand.\textsuperscript{137} Thus it becomes important to evaluate the changing political scenario in India in the mid-twentieth century in the light of India’s independence and the subsequent changes that were introduced in the medical education of the country, with a view to analyzing whether such benefits percolated to Calcutta which was then the capital of British India. It seeks to understand also the nature of advantages or changes that it ushered in, in that whether it proved significant for the betterment of women pursuing medical education and careers in the state.


\textsuperscript{137} Sujata Mukherjee, Medical Education and Emergence of Women Medics in colonial Bengal, Occasional Paper, Institute of Development Studies, Kolkata, August 2012,p.22
The Bhore Committee review

In the post second World War period, the subject of medical research in India was reviewed by the Health Survey and Development Committee also known as the Bhore Committee in 1946. It endorsed the need for continuing a strong central research organization with latitude in the formulation of research policies and complete freedom in the disposal of funds allotted to it. The committee pointed out that a grant of rupees four lakhs was miserably inadequate for medical research, as it required quite a lot in a vast subcontinent like India. The committee also recommended that the existing Indian Research Fund Association had to be organized on a broader basis to include all important branches of medicine and the responsibility for selecting and training promising workers in research techniques was to be assumed by the central organization.¹³⁸

Thus the Bhore Committee Report of 1946 focused on the enhancement of the standards of medical education in the country and suggested changes that were to be implemented in the realm of the under-graduate medical curriculum. It further recommended the establishment of the Central Committee for Post-Graduate Medical Education, that was to be ultimately responsible for laying

down the standards in respect of post-graduate facilities for such subjects and for promoting the development of basic facilities.\textsuperscript{139}

The Committee observed that the main factor which impeded the expansion of medical education in India, was actually an enormous shortage of teaching staff. This was exactly a problem that surfaced in the 1990s, at a time when the first woman Director of Medical Education, West Bengal, Dr. Jayasri Mitra Ghosh insisted that in order to attract the best doctors to the teaching faculty in the medical colleges, they should be allowed the right to private practice.

The solutions offered by the Bhore committee were the following---training of teachers at the All-India Institute of Medical Sciences, invitation of experienced teachers from foreign countries on a short-term basis with a view to enhancing a steady supply of a stream of teaching personnel of the highest quality. It also proposed the training of at least 200 selected members of the medical profession for periods ranging from two months to two years from the various provinces of India. It suggested, that men of the profession should be encouraged to acquire a knowledge of the improved methods of teaching, particularly in Anatomy, Physiology, Bio-Chemistry, Pathology, Bacteriology and Pharmacology, in increasing numbers, and asked to acquire post-graduate qualifications in this country. Later on, they could round off their education by visits abroad for periods ranging from six months to one year. To preserve a uniform standard of

medical education, it was urged that the only body empowered to grant medical qualification would be the universities. The other important recommendations related to the conversion of medical schools into medical colleges and establishment of new colleges.\textsuperscript{140} It was perhaps in consonance with this policy that the government in West Bengal and the University of Calcutta agreed on the establishment of post-graduate studies in medicine. \textsuperscript{141}

Although the Committee was formed in 1946 in the pre-colonial period, just prior to independence, it may be considered to be a blue print for the future policies pertaining to medical education in India. It is significant that while acknowledging the growing demand for medical education among women in India, in the interests of the women doctor it advocated co-educational institutions. The members of the Commission led by Joseph Bhore and others, including the then Bengal Chief Minister Dr. Bidhan Chandra Roy, were of the opinion that a complete course of training for women in any medical college was more likely to be ensured if the hospital to which the lady doctor was attached had beds for men as well as women. The provision of beds for men within the same campus was necessary for the female students for purposes of study and observation as there were diseases which could be studied more effectively in men than women. Moreover, it was necessary that the lady doctor be acquainted


\textsuperscript{141} Ibid
with both men and women of all classes, in order to hold her own in difficult circumstances in which she may often find herself, in the hospital or while doing private practice. In this way the recommendations of the Bhore Committee, facilitated the pursuance of higher education and professions of women in the field of medicine.

It would be far too simplistic to argue that the limits imposed by colonialism on the pursuit of and claim to fame by Indians in the fields of the core sciences, medical and technical education had disappeared overnight with the transfer of power from the British to the Indians and India’s attainment of political independence. But a fair assessment of the changes in the traditional mentality, attitudes and societal structures in the post-independence period, as reflected in the debates in Parliament and the West Bengal Assembly proceedings as well as the policies that were formulated and the tangible voices of protest or support to any policy or recommendation as far as women’s education were concerned from the male as well as the female sections of society, could be perceived. This would bring one closer to deriving and outlining not only the context but also the ultimate mental make-up of the men who framed the policies. Undoubtedly, they themselves were continually encountering a changing society particularly in the post- second world war period when in the aftermath of India’s traumatic partition, increasing numbers of women were coming out of their homes on both

sides of India’s borders in their quest to find employment, primarily to support their families. This basic instinct for survival, however, gradually merged into the woman’s quest for identity and economic independence, as not only the lower middle class women but even those from the upper middle class demonstrated an urge for education, not confined to the primary and secondary levels as was the case in the colonial period, particularly throughout the nineteenth century, but a growing interest in higher education particularly in the sciences. This choice was more often than not aided by their families as well. The numbers were less when compared to the male aspirants and there was also continual attrition in the numbers as one climbed the professional ladder, but the question that is to be mooted is that whether the government at the official level tried to come out with policies that favoured women explore a professional world at par with men or were they left to themselves to juggle as in yore the demands of a professional life with all the responsibilities of a family life that her shoulders had been born to bear.

The fact that medical education was in the priority list of administrators and academicians of the new order was evident from the address of the Principal of the Medical College at the institution’s 114th foundation day celebration. The Principal D.C. Chakraborty strongly advocated a recasting of the entire system of medical education in this country that would develop such institutions into guardians of national health instead of depending on mercenary doctors inducted
from abroad. This was in consonance with the Bhore Committee which too indicated that one of the basic needs of the nation was the issue of National Health.

**Establishment of a University College of Medicine for post-graduate medical education**

In the aftermath of India’s partition, as the government of West Bengal tried hard to grapple with the various problems of a fledgling divided nation, this problem also found an expected admission in the Budget session of 1950 by Prafulla Chandra Sen, the Minister-in-charge of the Departments of Food, Cooperatives, Credit, Relief and Rehabilitation Agriculture and Veterinary. Sen made a historic declaration that ‘Barring Police and Food, Education stands first today and Medical takes the second place.” Not surprisingly, therefore, the Chief Minister of West Bengal, Dr. Bidhan Chandra Ray, in a subsequent Budget session, in the year 1953, pointed out the inadequacy of doctors in terms of number alone. He reiterated that as pointed out by the Bhore Committee the need for registered doctors was more than two lakhs for the whole of India, the existing number of registered doctors in the country was only 40,000. The need for more medical institutions for more qualified doctors was thus justified. Such

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143 The Amrita Bazar Patrika, October 4th,1949,p.1

144 The Amrita Bazar Patrika, October 4th,1950,p.11

145 Proceedings of the West Bengal Legislative Assembly, First Session(Budget),1950, 3rd February-28th March 1950, West Bengal, 1950,p.327

doctors would henceforth be required to undergo a five year curriculum instead of a four year curriculum to become an aspiring doctor fit to obtain skill and knowledge that would make them suitable members of the medical profession capable of treating diseases and ailments in patients. That there was great emphasis on maintaining a high standard in medical education even at the Central level, became evident from Dr.B.C.Roy’s address at the All-India Medical Conference.¹⁴⁷

The Health Minister recommended that the existing medical schools would be abolished and their place would be taken up by medical colleges where a fundamental knowledge of science, Physics, Chemistry and Biology as a preliminary to the admission of students in the colleges would be introduced in West Bengal and in the other provinces as well.

He intimated the audience that the province of undivided Bengal had seven medical schools prior to independence. Out of this, in the post –independence period, three were lost namely - Dacca, Chittagong and Mymensingh, and the other four remained in West Bengal-Jalpaiguri, Burdwan, Bankura and Campbell Medical School. The latter had a two year course which was subsequently changed into a four year course and was abolished by the government with effect from 1948. In its place a medical college which enjoyed the privileges of

sending up students for the degree standard was established.\textsuperscript{148} The Deputy Secretary to the Government of West Bengal, Medical and Public Health (Medical) Department, further forwarded a note informing the members that arrangements had been made in the Campbell Medical College for an extension of affiliation of the college to the Final M.B.B.S. standard.\textsuperscript{149} The Campbell Medical School was converted into Sir Nilratan Sircar Medical College. Another Medical college, R,G.Kar Medical College, was recognized in the year 1916 and it began sending up boys from 1919 for the degree course. Two other schools that were in a moribund condition, namely, the National Medical Institute, situated in Upper Circular Road and the other in Gobra, joined hands to form one college. Dr. Subodh Mitra and the University Inspector of Colleges acting upon a joint report of inspection from Dr. Dinesh Chandra Chakravorty, Dr. Jogesh Chandra Banerjee, recommended that affiliation of the Calcutta National Medical Institute would be extended to the Final M.B. standard subject to the fulfilment of the conditions mentioned in the report.\textsuperscript{150} With these arrangements, about 500 students could be admitted every year in these colleges at that time. The total number of students who joined the Calcutta Medical College and the R.G. Kar Medical College numbered up to 200, taking into account the number of students who came out of the medical colleges and joined the doctor’s cadre adding up to

\begin{footnotesize}
\begin{enumerate}
\item The Amrita Bazar Patrika, Reel No.12 December 29\textsuperscript{th},1948,p.1
\item Proceedings of the West Bengal Legislative Assembly, Seventh session (Budget,1953), 1953, Vol.VII No.2, 2\textsuperscript{nd} March to 25\textsuperscript{th} March 1953, West Bengal, 1953,p.1443
\item Minutes of the Syndicate- University of Calcutta ,March 6 th.,Part II No.2, 1950,p.116
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a total of 700 doctors. The Chief Minister was aware of the necessity that the number and quality of Indian doctors required enhancement. Considering the fact that in western countries there was one doctor for every 1000 persons, the Chief Minister was keen to improve the quality and numbers of the medically qualified professional men and thus emphasized the need for proper guidance of a doctor in the post-graduate period which he felt would improve a doctor’s knowledge and efficiency in practice.

The lack of proper post-graduate study in medicine was deplored by Dr. J.C. Ghosh, Vice Chancellor of the University of Calcutta. At the 120th foundation day ceremony of the Medical College Dr. J.C. Ghosh expressed his concern over the absence of proper facilities in the city for post-graduate medical studies. He reiterated that as the Union and the State Public Service Commission attached greatest importance to the post-graduate degrees for a Doctor of Medicine, provisions for post-graduate medical studies in Calcutta had to be set up and important teaching posts for specialists could thus be filled up.151 This was also necessary in the light of the exodus of medical graduates from Calcutta who went to Patna, Lucknow and other distant centres for pursuing post-graduate education. The persistent demand for post-graduate medical education and research led the Calcutta University Senate to approve rules to govern the setting up of a University College of Medicine for post-graduate education in all

151 Minutes of the Syndicate University of Calcutta 1950, Part II, No.31, 1950,p.837
subjects including medicine. The idea of setting up an institution of post-graduate medical studies was first mooted by Dr. B.C. Roy in 1944, when he was the Vice-Chancellor of the University of Calcutta. It was around this time that despite the absence of any reservation of seats for women or any kind of leniency in the norms of admission or curriculum, the number of women students in the medical colleges grew steadily showing that there existed a demand for medical education among the women folk. Of the 350 women students in the four medical colleges of Calcutta, ninety per cent came from Bengal. This was about 250 more than what existed in the colleges about a decade ago that is in 1946. Out of this, more than half the number discontinued their studies during their first, second or third year in order to get married or dropped out for other reasons. During the next ten years, the number of such cases among women in the middle of their medical courses became almost nil. The zenith in the field of medical studies as far as women were concerned was reached around this time when Anjali Mukhopadhyay submitted her theses on the ‘Role of Dermatoplasty in the cure of hernia’ and a resolution was passed in the Syndicate whereby she was admitted to the Master of Surgery examination in 1954, and thereafter on being successful went on to become the first lady

152 The Statesman, Calcutta, February 5th, 1955, p.5

153 The Statesman, Calcutta, June 3rd, 1956, p.5

154 The Statesman, Calcutta, July 2nd, 1961, p.1
surgeon to have passed out from a medical college in Calcutta. That the establishment of a Central Body for the promotion of Post-Graduate Medical Education and Research in the state of West Bengal was on the top of the list of priorities and that attempts were made in that direction was evident from a letter from the Secretary to the Government of West Bengal, Medical and Public Health Department to the Vice-Chancellor of the University of Calcutta forwarding a draft scheme on the subject. By 1957 the Institute of Post-Graduate Medical Education and Research was established within the premises of the Seth Sukhlal Karnani Memorial Hospital. This emphasis on higher education and research in medical education, however, was not matched by any specific policies to enable women students to avail of the new prospects in medical education that were emerging despite the demand for lady doctors in several places in the districts such as the Contai sub-divisional hospital where there was a demand for lady doctors for the female patients. It was, however, turned down on the ground that sub-divisional hospitals were not provided with lady doctors and the hospital

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155 Dr. Debasis Bose eds. et.al. 175 years of Medical College Bengal, Comemorative Volume, (Kolkata: Medical College Ex-Students Association, 2009), p. 118 See also Minutes of the Syndicate, University of Calcutta, Pt. II, 1954, p. 966

156 Minutes of the Syndicate, University of Calcutta, Part II, No. 8, Feb. 27th, No. 8, 1956, p. 552

157 Minutes of the Syndicate, University of Calcutta, Part II, No. 8, Feb. 23rd. 1957, p. 552
had no lady doctor when it was run by the local committee prior to its provincialisation in 1944.\textsuperscript{158}

A notable step taken in the direction of the development of medical educational facilities for rendering further medical aid to the women of this State lay in the introduction of the Lady Dufferin Zenana Bill, 1955. The object of this bill was to provide for the utilization of the accumulated sum that was lying with the Countess of Dufferin Fund, Bengal Branch, for the past several years. It was decided by the governing body of the fund that its assets were to be shared between East Bengal and West Bengal in the ratio of three to one and that the sum of three lacs would be utilized through legislation for the purpose.\textsuperscript{159} Barring this scheme, however, the government did not come up with any scheme for lady doctors, although schemes for training indigenous midwives in the rural areas, in consonance with an age-old practice, and grants for the training of nurses and Lady Health Visitors as auxiliary personnel to help the medical professionals were implemented. The above schemes, however, were the result of the rapid expansion of hospitals, which had been established to avoid

\textsuperscript{158} Proceedings of the West Bengal Legislative Assembly, Seventeenth session 1957, Vol.XVII No.2, 13\textsuperscript{th} June to 26\textsuperscript{th} June, 1957, West Bengal, June 1957,pp.338, 1451

\textsuperscript{159} Proceedings of the West Bengal Legislative Assembly, Eleventh session (Budget),1955 February-April, 1955, West Bengal, June 1955,p.57
overcrowding caused by the partition and the influx of refugees displaced from East Pakistan which continued during this time. 160

The problem of proper accommodation facilities for female practitioners of medicine in the mofussils and districts continued to be a deterrent factor that caused reluctance of several women doctors to accept appointments in such areas as Siliguri, though it was a sanctioned post. 161 Gradually by 1958 the Department of Experimental Medical Sciences which was formerly attached to the Calcutta Medical College was transferred and incorporated with this Institute and a sum of Rs. 1.50 lakhs was sanctioned. The establishment of a fully-equipped Virus Research Laboratory under the Department of Pathology in this Institute was also proposed. The School of Tropical Medicine, Calcutta proposed to offer facilities aiding post-graduate medical education and research activities. 162

The government too recognized the role played by non-government medical institutions in catering to the medical relief of the people and therefore pursued the programme of helping such institutions with suitable grants. The R.G.Kar Medical College and Hospital, one of the important institutions which received

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161 Proceedings of the West Bengal Legislative Assembly, Part I, Twenty fifth session, Feb-April 1960, West Bengal,1960,p.426

162 Proceedings of the West Bengal Legislative Assembly, Twentieth session, Vol.20.,No.I, West Bengal,1958,p.442
Government grants till 1957 was taken over under Government control, management and maintenance. An additional sum of Rs. 14 lacs per annum was advised to upgrade its standard of teaching along with a provision of diet and medicine in order to bring it at par with other teaching State Hospitals in Calcutta. There was also a proposal to take over the Sagore Dutt Hospital at Kamarhati and expand and improve it to meet the needs of medical relief. A Bill was also scheduled to be taken up during the forthcoming session of the House.¹

In consonance with the Bhore Committee Report of 1946 and in furtherance of the demand for qualified medical staff, the admission of licentiates was stopped and only medical graduates passing from the government as well as non-government institutions (that were conducted by private individuals or bodies) were regarded as qualified medical staff. The necessity of appointing doctors in the villages was reiterated by Legislative Assembly member from Entally, Calcutta, Dr. Abu Asad Md. Obaidul who endorsed Pandit Nehru’s belief that ‘buildings are necessary but human beings are more necessary,... that a doctor is necessary even without a hospital---if he has equipment he can function better.’¹⁶³ He further pointed out that the doctors should give the villagers the feeling that the hospital belonged to them and not to the government.¹⁸ Thus an urge to provide medical relief to the people living outside the city and the towns,

¹⁶³ Proceedings of theWest Bengal Legislative Assembly, Twentieth session, Vol.20.,No.I, West Bengal,1958, p.442
covering a spatially larger geographical area became a part of the agenda in the Assembly discussions of that time. The scope of appointing female doctors was not debated or thought of, although there was a persistent demand for it.iii

The Assembly debates of the 1960s continued to pay emphasis on the imparting of medical education in the three Government and the one non-government medical college at Bankura. A Conference of Deans and Principals of Medical Colleges recommended that a separate set up under the Directorate of Health Services in the states should be set up to deal with the problems of medical education and research. With a view to promoting research, the conference urged the institution of additional funds to medical colleges for research programmes and the awarding of additional research fellowships. It also listed measures for increasing the number of teachers for the existing and future medical colleges.

It recommended that the age of retirement of medical teachers should be fixed at 60 years instead of 55 years as was the existing norm. A drive to economize medical education was also attempted by reducing the high cost of books through printing cheaper editions in India.164 Regarding the University College of Medicine the outgoing Vice Chancellor of Calcutta University Mr.N.K. Sidhanta said at the Syndicate proceedings that the university would have to create an

164 Proceedings of the West Bengal Legislative Assembly, Twentieth session, Vol.20.,1958, West Bengal,1958,p.46
atmosphere of medical research in the institutions. To put it in his own words ‘We must see that these do not become merely government-sponsored institutions.’  

With a view to developing the preventive side of medicine and creating public health awareness among the medical graduates, the three state medical colleges were provided with a department of Preventive and Social Medicine. Moreover, with a view to giving special training to medical and non-medical auxiliary personnel in the treatment of tuberculosis cases, a Tuberculosis Demonstration Centre was sanctioned in the Medical College Calcutta. Postgraduate medical education and research was conducted as before in the Institute of Medical Education and Research and also in the School of Tropical Medicine, Calcutta. Three new departments, that of Biophysics, Department of Virology and Department of Mycology were sanctioned in 1960 in the School of Tropical Medicine and measures were also taken towards the improvement of the Dental College.  

In 1960 during the 25th session of the West Bengal Legislative Assembly a persistent problem of providing accommodation to women doctors in the districts cropped up once again when a member of the Assembly Shri Satyendra Narayan Majumdar pointed out that in spite of the appointment of female doctors in the district hospital of Siliguri, none joined the post. A possible solution to the  

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165 Proceedings of the West Bengal Legislative Assembly, Twentieth session, Vol.20.,1958, West Bengal,1958,p.46

166 Proceedings of the West Bengal Legislative Assembly, Twenty-fifth session, Vol.25, West Bengal,1960,p.2
problem also featured in the discussions but no immediate solution could be found out. At the pre-medical course in the Calcutta Medical College, Nil Ratan Sarkar Medical College and R.G. Kar Medical Colleges respectively, 80 seats were reserved from the districts on the basis of merit. The establishment of a medical college in North Bengal to cater to the medical needs of the people was also proposed at the 36th session of the West Bengal Legislative Assembly in 1963. So in the early 60’s governmental efforts to cater to the needs and the medical aspirations of the youth did not go unnoticed; although whether such effects percolated to those who were marginalized on the grounds of caste, class, gender or the effects of partition was another issue.

In 1963, Anath Bandhu Ray, a minister of the West Bengal Legislative Assembly informed the house that till then the largest expenditure provided in the Budget was that of the Medical Budget. The Health Budget for that session furnished a comprehensive outline of the development schemes that were to be undertaken as well as the ones that already existed for which provisions had already been made so that they could continue undisturbed. The minister assured that in the health sector provision had been made to step up activities in all possible ways. He admitted that as society was fast changing so also was medical knowledge and its application, hence the horizon of medical activities was widening and the government was trying to keep pace with that. He admitted that West Bengal needed more medical men and so he suggested that admission to the medical colleges be done twice a year as had been introduced in the past instead of
lowering the standards or minimizing the period of education. The minister-in-
charge of the department of health Sm. Purabi Mukhopadhyay came up with the
suggestion that during the course of the fourth five year plan, it had been
decided to set up a medical college in Siliguri. At a later session of the
Assembly the thrust on expanding the facilities for post-graduate medical
education and research based on the recommendations of the Bhore Committee
became more pronounced when the minister announced the up-gradation of the
departments of Neurology, Maternity and Gynaecology, Surgery and Medicine on
the one hand and the setting up of a separate Research unit on the other hand
in the Institute of Post-Graduate Medical Education and Research Institute. This
endeavour was meant to enable the students of medical college to get admitted
to the post-graduate course. A striking awareness to tackle the deficit of qualified
doctors in the state notwithstanding, the West Bengal government was actually
towing the Central policy in accordance with the regulations of the Bhore
Committee and not paying any special heed to the equally serious problem of
low representation of women doctors in the state. To further the cause of higher
medical education, the facilities for medical education were increased even at the
post-graduate level.


168 Proceedings of the Legislative Assembly Official Report, West Bengal Legislative Assembly,
Purabi Mukhopadhyay, minister-in-charge of the Department of Health declared that out of a total number of 575 seats available for both boys and girls in the medical colleges, the government had not earmarked the seats meant for women. The government granted land to set up the University Post-Graduate Institute of Basic Medical Service and funded it with Rs. 90,0000 to enable it to buy equipments. The government also proposed to provide stipend to those who were not employed in the government service but were pursuing higher education in medicine so that they could concentrate on their studies instead of toying with the idea of sustaining themselves by private practice. In this respect the minister claimed that West Bengal was a pioneer and that other states had till then not thought of such a policy to promote medical education among the aspirants.\(^{169}\)

Criticism of the state policies, however, was not uncommon as was evident from the speech of a member of the opposition Shri Dwijendralal Sengupta of the West Bengal Legislative Assembly when he stated that many intending candidates for medical education were disappointed every year. Their position was particularly serious that year because of the limited number of seats in the medical colleges. The government, however, defended its position and one of the members of the ruling party the Honourable Prabodh Kr. Guha answered that in West Bengal there were already four state managed medical colleges, viz.,

Medical College, Calcutta, N.R.S. Medical College, Calcutta, Bankura Sammilani Medical College, Bankura and one privately managed medical college, viz., Calcutta National Medical Institute where the number of seats had been increased by 25 in the year 1963-64 from the previous availability of seats in 1962-63 that was 100, 100, 100, 50 and 143 respectively in the above-mentioned colleges. Besides a certain number of seats in each of the four medical colleges were reserved every year for the nominees of the government of India, other States and the Union Territories. The problems of space and overcrowding, for teaching and treatment, however, continued to remain a nagging problem for the Medical College, Sir N.R. Sircar and R.G. Kar hospitals.

This was a solemn reminder of the fact that all these colleges and hospitals needed extension. The Estimates Committee Report also pointed out that in the State Government’s Health Department figures clearly indicated that, the ratio of doctors to West Bengal’s population was decreasing year by year. At the same time about 400 posts were lying vacant as doctors were not attracted by government hospitals. In 1963 it was claimed that the department gave appointment letters to over 300 young physicians of whom only about 50% joined their posts. Moreover at an all-India level the Government of India


\(^{171}\)The Statesman, Calcutta, April 23\textsuperscript{rd},1962,p.9

\(^{172}\)The Statesman, ,Calcutta, August 23\textsuperscript{rd},1963,p.1

\(^{173}\)The Statesman , ,Calcutta , September 30\textsuperscript{th},1964, p.7

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alarmed by the large-scale exodus of Indian doctors to foreign countries at a time when the country needed them most in the expanding health services, was considering a number of steps to check the rising trend of exodus.\textsuperscript{174} Although the growth rate of doctors was relatively small when compared with nurses and other workers employed in the medical and public health services, the target envisaged was 5,600 people in 1976 and one person in 2000 in 1986. This compared with one per 6,300 in 1961. The total number of doctors was estimated at 360,000 in 1980 against 70,000 in 1961.\textsuperscript{175} The government’s stand was that they had provided the largest expenditure in the Medical Budget and that they were aware of the fact that with a society changing, medical knowledge and its application had to be updated as fast as possible. Hence, the horizon of medical activities was widening and the government assured that it was try to keep pace with that.\textsuperscript{176}

Governmental policies with regard to medical education and the profession revealed an inherent failure to bridge the gap between the number of medical personnel who qualified as professionals and the lack of availability of employment facilities for them. The result was that though the state of West Bengal abounded in medical men, still in the employment sector a dearth of medical men remained. As greater production was necessary and unavoidable,

\textsuperscript{174} The Statesman, ,Calcutta, November26\textsuperscript{th}, 1964, p.9

\textsuperscript{175} The Statesman, ,Calcutta, February 26\textsuperscript{th}, 1965, p.1

\textsuperscript{176} The Statesman, Calcutta, 1966, p.9
the suggestion was to hold admissions to the medical colleges twice a year.\textsuperscript{177} True, the facilities for medical education were increased even at the post-graduate level\textsuperscript{178} but the contradiction lay in the fact that the ratio of the number of doctor to the population of West Bengal kept on decreasing every year, according to the Estimates Committee’s Report on the State Government’s Health Department.\textsuperscript{179} About 400 posts lay vacant in the government hospitals as they were found to be unattractive. \textsuperscript{180}

To conclude, the first two decades after independence witnessed a conscious and planned effort on the part of the government to broaden the scope of medical education not only at the under-graduate level but also at the post-graduate level in order to provide quality health-care to the people at large. The policies, however, were in a large measure grandiose attempts to spread the ambit of medical education but were in spite of the best intentions of the government not grounded in reality as infrastructural problems of accommodation and structural problems of low pay for medical professionals continued to plague the profession particularly in the government sector. These problems having remained unaddressed deterred women from joining the

\textsuperscript{177} Proceedings of the West Bengal Legislative Assembly, Thirty-fifth session, Vol.35, No.1, 1963, West Bengal, 1963, p.4

\textsuperscript{178} Ibid

\textsuperscript{179} The Statesman, August 12\textsuperscript{th}, 1966, p.8

\textsuperscript{180} The Statesman, September 30th, 1964, p.7
medical service even after getting employment. Lack of pro-women legislation to help change the status of women within their families and in the public sphere meant that women actually had to overcome male domination and competition not only at the domestic sphere but from now on at the public domain as well.

The centuries old subjugation of women and their late start in education had been forgotten all too soon. As women put on an equal footing with men they seemed to expose those gaps once again in the system. True, that women had been co-partners with men for achieving the country’s freedom at least politically but the journey for gaining social and economic equality for the woman had just begun.