

Early days of Pharmacology education in Bangladesh*



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Honorable chairperson Prof. A.K.M. Nurul Anwar and respected participants of this excellent program, Assalamualaikum.

A heartfelt thanks you to all for having selected me as the chief guest of this event. I am honored. It is delightful to think that the younger generation of which the majority is constituted of has not forgotten the old. They have taken care to even remember an ancient person like me.

The best part of this occasion is the fact that the Pharmacological Society is being launched, a wish that pharmacologists had long cherished in their hearts. This special wish, with all our

thanks to the Almighty is being granted today, the 10th of March, 2006, although delayed. It is better late than never.

Pharmacologists, it is now your duty and responsibility to make this society flourish and blossom before everybody's eyes. It is my belief that every physician should have some idea as to how the subject Pharmacology evolved. Pharmacology is a branch of medical science that had long been neglected not only in this country but throughout the world. It had no identity of its own but had always functioned under the supervision of the Physiology Department.

To the extent of my knowledge, there used to be no medical college in Bangladesh before 1946. Only a meager number of medical schools in the

*This speech was delivered at the first annual meeting of Bangladesh Pharmacological Society at Dhaka on March 10, 2006.

country were involved in teaching medical science. After successfully completing a four years' course, graduates used to be awarded with an LMF diploma. Among these institutions, Mitford Medical School of Dhaka and Campbell Medical School of Calcutta were renowned. After the partition (1947), established 5 medical schools were located in Dhaka, Chittagong, Sylhet, Khulna and Mymensingh. Pharmacology was taught in the second year of the course under the name of MATERIA MEDICA. Dose, identification, composition, incompatibility, and prescription writing of drugs were taught as the part of practical lessons while the theoretical part consisted of a summary of the syllabus as constructed in those days. It was in the year 1946 when we were students at Calcutta Medical College when it came to our knowledge that a medical college had been established in Dhaka. The present building of Dhaka Medical College was then a part of Dhaka University. A portion of the northern wing of this building first served as the Dhaka Medical College and Hospital. After completing my MBBS and pre-registration clinical assistant within the November of 1948, I joined Dhaka Medical College and Hospital in the June of 1949. At that time, the Principal and Superintendent was the respectable eye specialist Dr. T. Ahmed. He was someone who would always try his utmost for the development and success of Dhaka Medical College and Hospital in spite of various technical difficulties that he had to encounter. Consequently I had to work part time in the pharmacology department for the first six months in spite of my being assigned to the hospital. At that time Pharmacology, Pathology, Jurisprudence and Hygiene were taught in the 3rd and 4th year. Dr. Hafizuddin who was the Resident Physician of the hospital, earnestly requested me to teach pharmacology to the students. I began to teach the subject during gaps in my hospital schedule. After facing a lot of problems, the most of which involved non-cooperation from the clinical staff, Dr. Hafizuddin, Dr. Yusuf Ali, Dr. Nesaruddin and I endeavored to establish the Department of Pharmacology together. At the end of the year,

Dr. A.K.S. Ahmed (a double MRCP) was assigned as the Professor of the Department. Although relieved, we wondered whether he would be able to look over the Department or whether he would be interested at all. This is exactly what happened. He got completely busy with the hospital. Dr. Hafizuddin became full Resident Physician, Dr. Yusuf Ali full House Physician, and I received papers assigning me as the Demonstrator of Pharmacology. Being a non-Bengali, Dr. Nesaruddin was not interested in working for East Pakistan. Henceforth, the entire responsibility of the Pharmacology Department was bestowed upon me unawares. Then the staffing of the department began.

The entire education planning and curriculum of the then east Pakistan's Department of Pharmacology, Dhaka Medical College was assigned to a newly passed MBBS graduate, Dr. Zoha. With the exception of one or two lectures all the lectures, practical and theoretical classes had to be taken by me. The students were in 4th year in 1949. Since it was not known whether the students had learnt any pharmacology in the 3rd year, the entire course had to be covered in their 4th year. The greatest of help then were Mr. Hamid Ali and Mr. Naimuddin (Class IV employees), Pharmacist Mr. Ali Shaheb (Class III employee) whose sincerity and devotion I still reminisce with earnest respect. The topics which then used to be given maximum preference were practical and applied education. The chief preparations in the practical classes used to be emulsions constituting of castor oil, cod liver oil, glycerin suppository, quinine mixtures, etc. Students had to learn to calculate via the metric, Apothecaries' and Avoirdssepis system. At that time, 50 to 60 years from now, the medical students were very eager to learn for which they usually came out with flying colors. It is not as though there weren't kids who had not interest. There had been situations when students had passed Medicine, Surgery, Gyne-Obs, however, were failing Pharmacology year after year in succession. Consequently, they were not being able to acquire their final MBBS certificate.

During then, the rule was that a student had to sit for the final professional three years after taking their second professional irrespective of whether they had passed every subject or not. After all this and successive reshufflings, it was finally decided that Pharmacology would be taught in the 3rd and 4th year along with Pathology, Forensic Medicine and Community Medicine. According to the latest curriculum, preclinical subjects are taught for one and a half years while clinical and para-clinical subjects are taught for three and a half years. I rejoined Dhaka Medical College in the March of 1958 after completing my PhD. The college had then acquired its very own building, which is the present building we have, with good adequate space for the accommodation of every department. We succeeded in enabling the students to carry out the common pharmacological experiments from the early 1959. They were: blood pressure of anaesthetized cats, isolated heart perfusion, and effects of acetylcholine, adrenaline, noradrenaline, vasomotor reversal, isolated auricle (guinea pig/rabbit), effects of drug on isolated guinea pig ileum, rabbit duodenum, frog rectus abdominis muscle, effect of drug on blood vessels, etc. The students were first allowed demonstrations that we carried out after which they had to carry out the experiments themselves. Everything was running with enthusiasm and vigor, when at the end of the year, I was transferred to Chittagong Medical College as an Associate professor. The then Professor of Dhaka Medical College was Dr. Mir Monsur Ali who never voluntarily participated in such things, but never discouraged anything either. Prof. Kamaluddin had tried to continue the classes, however, he too left for Glasgow University after a while for his PhD. Prof. Mazharul Imam took over the charge but the entire process began to lag.

To my dismay, I discovered that the Pharmacology department at Chittagong Medical College was anything but developed. I sent over the requisitions for necessary equipments, which I was granted after one year. It was then that experimental pharmacology was established at Chitta-

gong Medical College. Next, I was transferred to Rajshahi Medical College as a full Professor. During that time I traveled to Pakistan to attend a meeting of the Pakistan Pharmacopoea Committee. There I raised a question to the then health minister of the Central government Lt. General Barki about why West Pakistan had so many more medical colleges compared to East Pakistan who admitted that I was right and offered to look into the matter.

The pharmacology department of RMC in 1964 was almost non-existent, not to mention, non functional. It took me great hours of toil to set out requests and requisitions till at long last, all the required space, staff, equipment, and everything necessary was obtained and a full-fledged good department of experimental pharmacology was established. It is worth mentioning here that the first fully equipped and facilitated experimental pharmacology department was pioneered from there at Rajshahi Medical College, complete with an animal house. I was retransferred to Dhaka Medical College in 1966 and then to Chittagong in 1969 as Principal, superintendent, as well as the Head of the department of Pharmacology. There I found that the construction of the huge new hospital complex as well as the medical college was complete. To my great disappointment I discovered that no space had been allotted for the Pharmacology department. Great was my sorrow at this especially because this was a subject devoid of which neither could any drugs be correctly prescribed, nor any maladies rightly cured. At the inauguration ceremony of the new hospital building, I held up this matter directly to the Health secretary who insisted that I take full charge of the matter. Being the Principal as well as the superintendent I then indeed had the right to do anything I wanted. So I proceeded to take over the old hospital building and renovate it to turn it into a big flourishing department devoted wholly to Pharmacology. Later on the departments of Community Medicine and Jurisprudence were accommodated in that building also. I also had to bear with the realization that the department had

remained absolutely static and devoid of any development since I had left it and all the equipments for which I had previously laid out requisitions were sealed up in packets. Gradually by and by, these requisitions were set out, animals and animal houses bought, lab technicians and Class IV employees hired till the department was established and running. By observing the rapid development occurring at Dhaka Medical College, Chittagong Medical College and Rajshahi Medical College, the rest of the medical colleges began to develop more or less. Today it is very disheartening to see that experimental pharmacology is no more practically carried out by the government as well as the non-government medical colleges. Expensive equipments that were acquired via the foreign exchange had either become useless due to lack of use or have been dumped at the corners of storerooms. The

current teaching staffs of Pharmacology are much more qualified and there are plenty of opportunities. In addition, there is a special section allotted for experimental pharmacology in the syllabus of Bangladesh Medical and Dental Council. In spite of all these, this subject is not paid much attention, the reason of which I cannot understand.

I am of the opinion that everywhere outside Bangladesh, medical students themselves carry out experiments in experimental pharmacology, and in our country, the little that used to be practiced have ceased. Teaching and research are interconnected for which I believe that paying as much heed to research as is paid to teaching the theory, is a must. In spite of all limitations I believe that someone in the country has interest in developing the research sector.