

Medical Education in Jaffna

[Professor C. Sivagnanasundram Memorial Oration, 2009]

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By, Dr. K. Sivapalan MBBS, PhD.

President, Members of the council of the Jaffna Medical Association, Members of the Family of Late Professor Sivagnanasundram, Ladies and Gentleman, colleagues and Students: In commemorating a revered leader of our profession and society and a teacher and friend of most of us, I have the privilege to talk on a subject that has been the life line of Professor Sivagnanasundram and relevant to all of us.

Introduction:

I can relate my association with Prof. Sivagnanasundram in his own words he used to introduce me at the chairman's address in the JSA Annual Sessions: "Sivapalan was my student, colleague and now my boss". I was his student in Peradeniya, became member of staff in Jaffna and he considered all grades of staff as his colleagues and he was very happy when I was elected as the Dean that was when he started to regard me as his boss even though it was very embarrassing for me but he insisted on respecting the "chair". But on academic matters he was always my teacher. For example, he instructed me to show the full script of the chairman's address well in advance which he corrected thrice and I prepared my final presentation from that script.

About Prof. Sivagnanasundram:

Date of Birth is 30.03.1928. He published his first short story in Weerakesari (1947) when he was 19 years old. He entered the Faculty of Medicine, Colombo in 1950 and graduated in 1955. He was awarded the nick name "Nanthi" by the president of India, Honorable C. Rajagopalachari (Rajaji) in 1956. He kept saying, "I got MBBS in 1955 and Nanthi in 1956. For me both are equal". He obtained DPH in 1968 and Ph. D. in 1971 from University of London.

After completing his internship in General Hospital, Kurunagalla in 1955, he was posted as Medical Officer in Charge of PU Hiripitiya in 1956. In 1958 he was transferred to Lady Ridgeway Children's Hospital for 6 months and he went to Nawalapitiya as MOH in 1958. In 1961 he came to GH Jaffna and in 1961 he became the MOH at Jaffna Municipality. He then worked as the JMO Jaffna after 1963 for two years.

Having obtained wide ranging experiences as a Medical Officer, he entered the academic world in 1965 as a lecturer at the Faculty of Medicine, Peradeniya. He went for postgraduate studies in London School of Hygiene and Tropical Medicine in 1967. On return with his PhD in 1971, he was promoted as Senior lecturer and became Associate professor in 1975.

When the Jaffna Faculty of Medicine was established in 1978, he was appointed as Professor of Community Medicine. He was elected as the Dean in January 1984 to July 1988. He was the First President University Teachers Association in 1980, President of the Faculty of Medicine Teachers Association in 1983 and the President of the Jaffna Science Association during the same year. He was elected the representative of the Senate in the University Council repeatedly for several years and the Council has been nominated for the post of Vice Chancellor thrice. He continued teaching Community Medicine and engaged in community Development programs as a Saye Devotee till his demise on 04.06.2005

He held several prestigious postings as follows:

1972- Resource person: seminars on Human Reproduction & Population Dynamics and Family Planning in Sri Lanka

1977- WHO fellowship for postgraduate teaching of community medicine in Singapore, Bangkok and Calcutta

1980- WHO Fellowship- in Medical Education at the Liverpool school of Tropical Medicine- Teacher Training course for primary health care

1981- Consultancy on paramedical education in Jordan [1 year]

1985, 1988- WHO Consultant- Health Systems Research in Malaysia

1989 - WHO Consultant on Health Systems Research Zimbabwe

Member of the board of study in community Medicine at the PGIM for several years

For Prof, there was hardly any difference between his home and the Department of Community Medicine. The Faculty was the extended family for him and teaching was the job, hobby and everything. Retirement did not take him away from the Faculty. Even when the university administration refused to give him extension of appointment he continued his most needed service to the Faculty and to the Students. When he was terminally ill, he called me to discuss certain issues and how the teaching Community Medicine should continue in his absence.

Medical Education:

Even though educating is the trade of teachers, Prof. Sivagnasundram loved the word "learning". He used to say, no point of our educating if the receiver does not learn. One incident that made this idea clear to me was during the Medical Exhibition when I was a medical student. I was placed in the snake section and was writing the first aid of snake bite on a board for display. I designed the letters to be wavy and everybody in the team said it looked good and I was almost completing the work when Prof and some other teachers walked in to see how things were progressing. Prof. was attracted by my writing and praised me saying snakes in each letter. He started to read it and halfway through he said, "Siva, it is straining eyes. Everybody will see this and admire the art work but nobody will read it. Your work will be worth only if people coming to the exhibition can get the message. Erase the whole thing and write in plain letters". I wrote the whole thing again till late in the night.

What is learning? In professor's words, "it results in change of behavior". Some other definitions are,

- Learning is acquiring new knowledge, behaviors, skills, values, preferences or understanding, and may involve synthesizing different types of information. The ability to learn is possessed by humans, animals and some machines.
- Human learning may occur as part of education or personal development. It may be goal-oriented and may be aided by motivation.
- Carl Rogers said in 1983, "I want to talk about learning. But not the lifeless, sterile, futile, quickly forgotten stuff that is crammed in to the mind of the poor helpless individual tied into his seat by ironclad bonds of conformity! I am talking about LEARNING - the insatiable curiosity that drives the adolescent boy to absorb everything he can see or hear or read about gasoline engines in order to improve the efficiency and speed of his 'cruiser'. I am talking about the student who says, "I am discovering, drawing in from the outside, and making that which is drawn in a real part of me." I am talking about any learning in which the experience of the learner

progresses along this line: "No, no, that's not what I want"; "Wait! This is closer to what I am interested in, what I need"; "Ah, here it is! Now I'm grasping and comprehending what I need and what I want to know!"

- Thirukkural, the ancient Tamil Literature says to learn thoroughly by clearing all doubts and act accordingly.

கற்கக் கசடறக் கற்பவை கற்றபின்
நிற்க அதற்குத் தக

Medical education is the process of developing medical professionals. It involves the students and teachers who respond to the medical needs of the society. The society keeps changing. As a result, medical needs and awareness of the needs keep changing. As a result, medical education also must keep changing. Five ongoing transitions that influence medical needs of any society are demography, environment, epidemiology, economy and technology. The transition that changes the awareness of the medical needs is the level and nature of education in the society.

Evolution of Medicine and Medical Education:

Prof insists on learning the history of Medicine and Medical Education to understand the evolution of Modern Medicine. He persuaded me to read the book on history of medicine when I was a probationary lecturer.

The practice of medicine and teaching of medicine could be traced back to 2500 BC in ancient universities of India. Prior to 19th century, when scientific method was first applied to medicine, all medical practices were what we call now as "Traditional Medicine". Different systems developed in different parts of the world. A common feature probably was the attribute to "Karma" or committed sin and hoping to heal through prayer. Medications were considered as second option or accessory in healing. Allopathic system appears to have originated in the fifth century BC in Greece by Hippocrates. He introduced observation and reasoning. This system developed into the modern medicine.

Jaffna received Siddha system of medicine from South India, Aurvedic System from North India, Unani system with the arrival of Muslims and Homeopathy and Allopathy with the arrival of Europeans.

In the early days medical professionals were regarded as persons gifted with healing powers. The teaching was mainly by apprenticeship. The students followed the "Guru" or the Master. One became the healer when the master decided on the competency. It was a family profession in many instances. When the healer dies another member of the family became the healer. If a system of educating existed, the dominant student became the healer.

First examination for medical practitioners was held in Britain in 1551 by establishment of Royal College of Physicians. GMC was established in 1858 to supervise and regulate medical education. In South East Asia medical schools were established based on British system as in the following table:

Country	year
India	1824
Indonesia	1851
Sri Lanka	1870
Thailand	1889
Myanmar	1924
Nepal	1978

The medical schools remained with British curricula until 1950s. By then it was realized that the education did not suite the population served. After that changes began taking place.

Medical Education in Sri Lanka

The medical school run by Dr. Samuel Green in Jaffna does not seem to have gone into records of history. I was happy when Dr. Rajaratnam said, in his Chief Guest Address at the inauguration of the sessions, that his close relatives were students at this medical school and Professor Naratha Varnakulasooriar of Faculty of Medicine, Sri Jayawardanapura has written about this last month. Unfortunately it had to be discontinued and Colombo medical school was established in 1870. A second medical faculty was opened in Peradeniya in 1964 with modified thinking of medical teaching while Colombo remained strictly traditional at that time. Faculty of Medicine Peradeniya deviated from "teaching" of medicine and engaged in "Active Learning". Students were stimulated to ask questions and learn instead of passively sit at lectures and clinical material was introduced early, from the first year. The presentations at the Kandy Society of Medicine conducted every Tuesday at 6.00 PM in the Physiology Lecture theatre and the Clinico-Pathological Conferences held every Thursday morning at 8.00 AM in the Hospital mortuary provided immeasurable informal teaching to students. Lively and open discussion of consultants and professors in front of the students on rights and wrongs, omissions and commissions, past, present and future of treatment plans etc. impressed on the students and provided learning experiences available nowhere else. The first Medical Education Unit in Sri Lanka was established in early seventies in the administration block of the Faculty of Medicine, Peradeniya, with a view to make medical education more appropriate and to train staff in medical teaching when Professor Varagunam returned with training in Medical Education. This made a big impact on the teachers there initially and later in all Faculties of Medicine and later development of Staff Development Centers in all Universities.

The next two faculties of medicine were established in Jaffna and Karapitiya in 1978. More medical faculties came into existence with time in Kelaniya, Sri Jayawardanapura, Batticaloa, and Anurathapura. Two attempts to establish private medical schools - North Colombo and North Lanka failed.

Medical Education in Jaffna

Prof. C. Sivagnanasundram, Prof. Hoover and Dr. S. V. Parameswaran [later promoted as professor] were the founder academic staff of the Faculty of Medicine, University of Jaffna. Prof. Hoover came from Colombo Medical Faculty but the other two were from Peradeniya and exposed to the changing trends in medical education there. Almost all staff members who joined the Faculty thereafter were influenced by Peradeniya education system as students or as staff. Probationary lecturers were sent to MEU Peradeniya for two week course in Medical Education in early eithties.

The Faculty in Jaffna formed a Curriculum Committee which discussed the curricular matters. Professor Sivagnanasundram played a key role in designing the curriculum of the Jaffna Medical Faculty. The committee had been chaired by Professor Sivagnanasundram for most of the years and Prof. Parameswaran had been the chairman for the rest of the years with few others in between. The driving force of the curriculum committee had always been Prof. Sivagnanasundram as long as he was in the Faculty irrespective of whether he was the chairman or a member. I was privileged to serve as the secretary of this committee to Prof Sivagnanasundram especially when he organized a workshop in Jaffna for Faculty and Extended Faculty staff for curriculum development under the sponsorship of WHO, in 1983. That was probably the first instance of respecting the consultants in the Teaching Hospital as Teachers and involving them in Formal Educational Activity.

Superficially, the curriculum of Jaffna Medical Faculty appeared to be a traditional, subject based one, it had several modifications to make the course more relevant and meaningful. For example, physiology incorporated aspects of statistics done by the Department of community medicine and behavioral science done by Department of Psychiatry. Applied anatomy and applied physiology classes were conducted by consultants from the teaching Hospital. All examinations had clinicians as external examiners. The clinical subjects focused on problem based approach for teaching. The JMA sessions were made compulsory for final year students and topics related to patients discussed in the JMA were not redone in the ward classes or lectures. Clinico - Pathological conferences were planned and incorporated in the curriculum. All these progressive approaches had to be abandoned or cut short because of the war situation and dearth of staff.

Public Health was a phobia for many in the seventies. One Professor told, “We don’t train doctors to look down the drains” at the in-service training for Medical Officers. Peradeniya started to change this image and introduced community based teaching for medical students with Hinthagala project area and introduced the concept of Health Promotion. The community based curriculum of the Department of Community Medicine Jaffna, designed by the Professor at the inception had been maintained so far and we are planning to extend it further.

The Medical curriculum was heavily biased towards curative medicine and only one subject was there to deal with preventive medicine and Health Development of the society. Preventive and health concepts are being integrated into all subjects due to untiring efforts of Prof and others.

Medical Curriculum

Curriculum is an educational policy. Such a policy can be enshrined in a document, and / or be a process enacted in practice. As a written document it is an attempt to communicate the essential principles and features of an educational proposal in such a form that it is open to critical scrutiny and capable of effective translation into practice. This amounts to far more than simple choices about what doctors should learn and how they should learn it. The term refers to all the activities, all the experiences and all the learning opportunities for which an institution or a teacher takes responsibility either deliberately or by default. This includes: the formal and informal, the overt and the covert, the recognized and overlooked, intentional and unintentional learning opportunities.

Educationists must be mindful of the following risks in developing a curriculum:

- The temptation to ignore the fundamental role of values which underlie all curriculum design and development issues, which are the driving force of sound education.
- Temptation to invent simplified version rather than do justice to realities.
- The creeping assault of management discourse in reference to matters educational- like assessment as management tool rather than a part of educational practice.
- The assumption that components of practice will 'cash out' into simple and visible behavior and design curriculum around visible elements of practice at the expense of invisible ones like professional judgment.
- The view that quality can be couched in quantitative terms.

The Jaffna Faculty of Medicine became the first Faculty in the island to possess a documented curriculum by 1985-86 because of the efforts of Prof. Sivagnanasundram and the cooperation of the Heads of Departments. The characteristics of the medical graduate of the Jaffna Medical Faculty had been defined in that document long before the concept of quality assurance came up and the concept of 'Benchmark' for each course was thought about. A Subject Benchmark

Statement in Medicine was developed by representatives from all faculties of medicine and published by the Committee of Vice Chancellors and Directors in 2004.

The curriculum of our Faculty has been subjected to a major revision under QEF grant of the IRQUE project in 2009. The Faculty is now committed to develop Integrated Spiral Curriculum and adopt SPICES model of teaching in the years to come. The SPICES stands for student centered, problem based, integrated, community based, Electives and systematic learning activities. Even though this comes as a modern concept in Medical Education, elements of all these had been in operation in our Faculty through the efforts of Prof. Sivagnanasundram and others. His Dr. V. T. Pasupathy Memorial Lecture in 1987 on "teaching and learning medicine: ideas from eleven British medical schools" remains a monument of his critical thinking on medical curriculum.

At the moment we are synchronizing the subjects with additional necessary components incorporated. One major inclusion is the Personnel Professional Development Stream. Another area to be introduced into the curriculum is the subject of Family Medicine to keep with the changing trends in the country. At the moment it is to be a part of community medicine.

Student Research

Many health problems are not investigated scientifically because doctor trained through traditional curriculum does not know research methodology and the ad hoc investigation carried out by such doctors may have errors and biases. The WHO suggested in 1988, "students should be trained in HSR; the degree and the depth of training could vary from introduction to the concept of HSR, teaching of HSR methodologies, decisions of HSR, results and involvement of students in HSR activities". Professor Sivagnanasundram incorporated student research project into the curriculum of Community Medicine in 1990. To facilitate this, Prof has written a book on "Learning Research" which has become very popular among students and teachers of all Medical Faculties. Laboratory research was introduced at pre-clinical level through biochemistry by Prof. Balasubramaniam

Reproductive Health

Prof was very worried about the inadequacy or even negligence of reproductive health in the curriculum. Topics such as sexuality, parenthood, adolescent sexuality are not openly discussed in our cultural background. Prof was instrumental in procuring books in these fields for our library. He used to say that we know the least about the most important aspects of healthy life. Considerable number of student research has been in this field and he was very happy when I talked on reproductive health in JSA. We need to work more in this area to bring about individual, family and social health.

Challenges in developing Medical Curriculum

At the moment the most important question in developing the curriculum is to decide on the course content of each section that could be justified in terms of future usefulness. For example, the needs of a graduate to work in periphery at the primary health care level or to go into Family practice and the needs of graduates who would pursue post graduate studies in all possible medical specialties would vary widely. The specialties span out in wide ranging fields in curative and preventive perspectives. The present curriculum of all medical schools incorporating all needed aspects comprises more than 300 credits where as the standard load for university education in Sri Lanka is 30 credits per year. If we allow students to choose the material that could be relevant for their future prospects, this load could be reduced but we will have to design suitable examination procedure.

As the immediate goal is to prepare the students for work as an intern medical officer in a tertiary hospital, the preventive and social aspects taught at the Faculty are neglected by students.

We can't change the final examination as we like it because of the need to prepare a common merit list and the Faculties of medicine are to move towards a common examination.

Para- Medical Personnel and Education

When the concept of "Health" was developed, Preventive Medicine became a necessity in medical education. Another concept that challenged the traditional medical curriculum was the 'Primary Health Care'. These two concepts had been the "mantras" chanted by Prof. Sivagnanasundram every now and then. The historic International conference on Primary Health Care held in Alma Ata in 1978, affirmed the principle of 'Health for all 2000' and declared that the primary health care approach was the means of achieving health for all. One of the prime requirements to achieve the goal of health for all was the deployment of appropriately trained health personnel of the right quality and in the right numbers within the health care system and this was considered by many to be difficult while the doctors were trained in the traditional way.

As mentioned at the beginning, medical education is the process of developing medical professionals. In ancient times the healer or the doctor was the one and only category of medical personnel. As medicine developed scientifically and the understanding of illnesses and their management widened, many categories of personnel came into the scene. But they were regarded merely as assistants to carry out the instructions of doctors.

Prof Sivagnanasundram played a key role in converting the Public Health Midwife who was attending only to maternal and child health into a Family Health Worker to provide care with respect to care of ante-natal, post-natal, natal, infants, preschool children, family planning, and chronically or acutely ill at elementary level and to health educate people at all levels.

Professor Sivagnanasundram wanted to educate the paramedical personnel and wanted to regard them as members of a health team. He has participated in several international seminars and received several WHO fellowships related to Community Medicine and Medical Education. They included education of paramedical personnel as well. In 1981 he had been appointed as consultant to the Ministry of Health in Jordan on training paramedical personnel. He was very keen on developing a complete facility for paramedical education in Jaffna. He tried different techniques to achieve this. He got the paramedical school incorporated in the corporate plan of the University of Jaffna. He had another idea to initiate courses in paramedical sciences in the Faculty of Medicine. As a key to this ambition, he got this idea into the institutional objectives of the Faculty of Medicine. The objective number 4 is: to provide training programs for supporting staffs in the health care system.

The need for educating health professionals at the Degree level has generally become accepted as indicated by the newer Faculties of Medicine named them as "Faculty of Medical Sciences" and made provision to admit students for degrees in allied health sciences. But the established Faculties could not change their image of being Faculties of Medicine conducting the MBBS course only. Prof.Sivagnanasundram has at times proposed the change of our Faculty into a Faculty of Medical Sciences but the situation here and shortage of staff prevented progress in that direction. Prof. Sivagnanasundram had been contributing to and also helping in the implementation of the change in the focus of the WHO from developing the staff for the new medical schools in the 1960s and 1970s to Reorientation of Medical Education and later to development of Health Manpower.

Para-Medical Courses in Jaffna

In mid eighties, there was a severe need for supporting staff in the hospitals of North and East and attempts were made to establish private paramedical training centre with the support of Jaffna cooperative stores. A series of meetings were held in the Faculty and given up after selecting

the students at the last minute due to worsening war situation.

The department of Community Medicine organized a training program for PHI around 1998 with the approval of the Ministry of Health and the Public Health Inspectors produced by that program proved to be very efficient and effective health workers. Now the RDHS is conducting the training program for PHIs with the help of the staffs in the Faculty.

The Faculty organized a Health Studies Unit in the Department of Community Medicine and conducted certificate course in Pharmacy, diploma in Community Health, Diploma in Physiotherapy and Diploma in Medical Laboratory Sciences with a view to meet the health needs of the area making use of the facility given by UGC to start self funded courses. One batch of students completed the course. The HSU faced problems of shortage of staff and delay in approving the curriculum by the Ceylon Medical Council for various reasons. This happened to be the first instance of giving university degree or certificate for courses in paramedical sciences in Sri Lanka. This has stirred the health system and initially all universities were stimulated to commence similar diploma courses. Soon trade unions and the Ministry of Health requested the UGC to commence degree courses in Allied Health Sciences and we have utilized the opportunity to commence degree courses in Nursing, Pharmacy and Medical Laboratory Sciences. More degree courses are to be commenced. The degree courses have increased the work load tremendously and as a result, the Faculty has temporarily halted admitting students for self funded diploma courses. It is now expected that the Allied Health Sciences will grow into a Faculty of their own leaving Faculty of Medicine to deal with MBBS course only.

However, the medical curriculum should train medical students to understand the role of other health professionals in providing health care and to regard them as members of the health team. Professor Sivagnanasundram was keen to develop this aspect and as a first step he introduced 2 weeks of clinical clerkship in nursing. Even though it was a good move, it had to be abandoned because of shortage of Nursing Tutors to do this appointment.

AMP course

In early eighties, the Government of Sri Lanka introduced training of AMPs to meet the health needs of the periphery and Prof. Sivagnanasundram took charge of the Jaffna centre and acted as the coordinator for the program which served to satisfy the burning needs of North and East of the country at that time.

Other systems of Medicine

Another area of interest is other systems of Medicine. Prof. Sivagnanasundram used to keep saying that the best in all systems should be useful to the society and there must be mutual reference of patients between the practitioners of all systems of medicine especially with Siddha medicine. He wished that medical students should learn about these systems at some point. Further, he has helped the development of the Unit of Siddha Medicine, Jaffna in all possible ways he could. His expectation was what is regarded as Tamil system of medicine, namely the Siddha Medicine develop and flourish in our area.

Public Education and Social Reforms

For Professor Sivagnanasundram, medical education did not end with educating the Health Professionals. His main concern has been raising the health awareness of the society. He, as a youngster, could not tolerate the misconceptions and malpractices in the society and took his pen as a means of social reform. He has authored several short stories published in three collections, three novels, health education materials in the form of letters and books for human resource development.

Summary of books:

- அருமைத் தங்கைக்கு..(தாயாகப்போகும் தங்கைக்கு பிரபல டாக்டர் எழுதிய கடிதங்கள்).1960
- அன்புள்ள நந்தினி- (குழந்தை வளர்ப்பு பற்றிய கடிதங்கள்). 1973
- உங்களைப் பற்றி- சிறுவர் அறிவு நூல்.1973
- தம்பி தங்கைக்கு- இளைஞர் அறிவு நூல். 1996
- மலைக்கொழுந்து- நாவல்- 1964 (சமூக சீர்திருத்தம்)
- குரங்குகள்- நாடகம்- 1975
- தங்கச்சியம்மா- 1977 (மருத்துவ மாது மற்றும் கொலரா கட்டுப்படுத்தல்)
- நம்பிக்கைகள்- நாவல்- 1989 (மருத்துவ மாணவரினதும் வைத்தியர்களினதும் எதிர்பார்ப்புகளும் நடைமுறைச் சிக்கல்களும் அவர்களைப்பற்றிய சமூக நம்பிக்கைகளும்)
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- கண்களுக்கு அப்பால்- சிறுகதைத் தொகுப்பு- 1984
- நந்தியின் கதைகள்- 1994
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Public Education in Medical Curriculum

The Department of Community Medicine introduced the Field Health Work for students to gain experience in the same way as that of the Professor.

Conclusion

Prof has lived and his commitments are living as example of “Preach what you Practice” “சொல்லியவண்ணம் செயல்”. He has laid a very strong foundation for good, complete and successful Medical Education in Jaffna. He enjoyed good cooperation from all around him. It is up to all of us to build on his foundation.

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