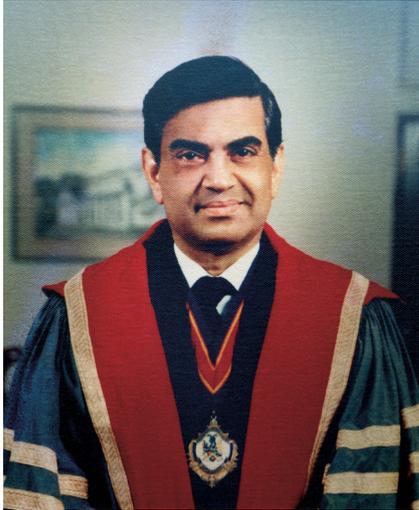


## An Interview with Prof Raj Nambiar

*Dialogue between Prof Pierce Chow, President of the College of Clinician-Scientists and his teacher Prof Raj Nambiar, previous Master of the Academy of Medicine, Singapore.*



**PC: The Academy of Medicine was established during a very different time. How far do you think it has fulfilled its original aims? Moving forward, what do you think would be the continuing role of the Academy?**

RN: When it was established in the 1950s, the Academy's main aims were to advance postgraduate medical education, research and promote high standards for professional and ethical practice for its members.

However, during the first 10 years, the Academy was just finding its feet and progress was rather slow. At the beginning, it had less than 50 medical specialists, a small office in the basement of the old Alumni Association Building and one administrative secretary in charge. You probably do not remember the old Alumni building across the present one, do you?

**PC: Probably not (laughs).**

RN: Several years later, a lecture room on the ground floor was furnished and named Academy lecture theatre. Besides organising occasional postgraduate lectures, the most important activity for the Academy was the Annual Scientific Congress. It later became the Singapore Malaysia Congress of Medicine and was the major scientific meeting for specialists in Malaysia and Singapore. Since then, the Academy has come a long way in its 60 years in trying to fulfill its original aims.

**PC: And there wouldn't have been many specialists then as now?**

RN: There were only a small number of specialists in the major specialties. Doctors interested in specialty training then had to go overseas for their examinations as there was no local organisation for it. The Australasian Colleges were the first to offer their help in our postgraduate education.

**PC: The Australians came here and were quite active?**

RN: Yes. I think it was in the late '50s that the Australasian College of Surgeons and the College of Physicians offered to conduct postgraduate courses and examinations under the Colombo Plan in Singapore. The first primary course and examination was held by the Royal Australasian College of Surgeons in 1957. Those who passed had to go to Australia for final fellowship examinations.

**PC: So they did their Primary here and the Finals there. But not as a training attachment, just the exam?**

RN: I think there was also a training attachment. I know Drs James Murugasu and NC Tan were among the early ones in this scheme. Much later, advanced surgery courses and final fellowship examinations were also held in Singapore, both a first for the Australian College of Surgeons to hold their examinations in Southeast Asia.

The Academy was the prime mover in the formation of the School of Postgraduate Medical Studies. It was following many memoranda and representations by the Academy that the Government finally agreed and established the School of Postgraduate Medical Studies in 1970. It was started as an independent School under the University. The Director was appointed by the Vice Chancellor and the membership had equal representation from Academy and University and DMS representing the MOH.

The School was responsible for organising courses and the local postgraduate examination for the M.Med degree. Initially it was in 4 disciplines: Internal Medicine, Surgery, Paediatrics and O&G. Later it was expanded to include 10 specialties. From the very beginning, the School had maintained high international standards for our examination and so we had external examiners from the Royal Colleges. I remember that for M.Med Surgery, it was pitched equal (if not higher) than the fellowship examinations.

**PC: It has always been seen as being more intense (laughs).**

RN: Yes. Although the format was similar to fellowship examinations, more time was allocated, especially for clinical examinations. So it allowed for a more thorough assessment of candidates. We also had the Chairman or the Chief Examiner from the Royal Colleges to participate as external examiner.

In recognition of our high standards, the Royal College of Surgeons of Edinburgh decided to hold Joint Examination with the School to award the FRCS Edinburgh together with M.Med Surgery. After the first joint examination in 1985 in surgery, joint examinations were started in many other specialties.

Another important role that the Academy played is in certification of specialist training. It happened with rapid growth of specialties and subspecialties when the training and assessment in basic specialty was recognised as inadequate. So an advanced training in specialties was introduced. A Joint Committee for Advanced Specialist Certification (JCAST) was started in which Academy had major responsibility.

**PC: So, it came back to the Academy, so to speak?**

RN: Yes, Academy was the initiator of specialists' certification long before the Specialist Certification Board was formed. Academy had a standing committee on specialist certification that formulated the criteria for specialist training in all recognised specialties.

**PC: Which year did this occur?**

RN: I think it was pretty early, in the 1980s. But the Specialist Accreditation Board (SAB) under the MOH was formed much later, after the MRA in 1997. The SAB, as you know, is now the overall charge of specialist certification in Singapore.

**PC: I believe in Australia and some other places, until today, the Colleges themselves can decide who is a specialist.**

RN: Yes, but these colleges have a charter from the government whereas here, the MRA is by an act of parliament.

**PC: So, in a way, this diminished the role of the Academy?**

RN: Not really. I think Academy is now involved in a lot more activities than before. Since the SAB was formed, the Academy has had greater responsibility through the Joint Committee for Specialist Training (JCST). The Master of the

Academy is co-chair with the Director of graduate division of the Faculty of Medicine. The JCST has oversight for the training in all specialties and subspecialties except the 10 specialties that continues to have an M.Med Examination.

**PC: So the role of the Academy since its beginning has mainly been in the training of specialists?**

RN: Indeed, it has evolved over the years. You know, Academy also has had a major part in starting the Continuing Medical Education (CME) for specialists? Academy initiated it as a voluntary arrangement. Specialists who were Academy members were requested to sign attendance at accredited CME lectures and courses to show that they have been actively involved in learning and updating their knowledge. However, the programme was not a success because there was no regulatory pressure. Later, the Singapore Medical Council (SMC) made CME a compulsory requirement for all medical practitioners in Singapore to get licence to practice.

**PC: Where do you see the role of the Academy as we move forward in this sense?**

RN: I believe, in general, the Academy has done well and it continues to be active in postgraduate education and training of specialists. Moving forward, I would like to see Academy playing an increasing role in professional development in order to assure that specialists practising in Singapore are current in their knowledge and skills and uphold high moral and ethical values.

**PC: What can the Academy do in this?**

RN: Well, now that the Academy has many specialty Colleges and Chapters under its wings, it is important to formulate programmes that are essential for all specialists and cut across specialties. Structured courses and lectures for professional development are useful to all specialists and I am glad to see Academy organising relevant courses on medical ethics, medical expert evidence etc. Since we started our CME programme more than 10 years ago, we have not made much progress. The practice of merely signing in at lectures and collecting the required number of credit points is no assurance of continued learning or improvement in practice. Even the current maintenance of certification (MOC) programme may not go far enough.

**PC: One of the challenges the Academy faces now is that not all specialists wish to be Fellows. They think they are quite okay without that and which is why it is a struggle for Academy to get new members.**

RN: Yes, I am afraid this will continue to be a big problem.



Prof Pierce Chow (right) seeking the views of Prof Raj Nambiar in an exclusive interview for Annals.

Although SMC has recognised Fellowship of Academy (FAMS) a registrable qualification, it is not a requirement to practice as a specialist in Singapore.

**PC: So, the Academy needs to create value in their recertification?**

RN: Exactly. Many other countries have introduced recertification in the last 10 years. The American Boards have had it for a long time as a requirement for MOC. The American Board of Surgery (ABS) recertification is every 10 years and requires a medical licence and institutional privileges, CME activity, practice assessment and an MOC examination in the specialty. If and when we start this process, I believe the Academy will have a major role to play and that will provide ample opportunity to create value for its members.

**PC: Surgical training has undergone very significant changes recently. Although we have adopted a North American system of training, it has been observed that surgical teachers continue to teach as they used to under the UK collegial system. There is discussion now that we need to add another year and return the required period back to 6 years in order to produce competent surgeons. What are the pros and cons of the North American system of surgical training? Do you think it works in Singapore?**

RN: Yes, you are right about surgical training that has undergone major changes in the last 25 years. Even in UK, it is no longer the traditional apprentice system in which the number of years spent in surgical service was counted as training and passing fellowship examination the hallmark of a specialist. The American system, on the other hand, has been known for being well structured with a curriculum, close supervision, competency-based progression and formative assessments during training.

Perhaps it is important to understand that over the years, the UK and Australasian systems have also made major changes and also incorporated competency-based training and assessments in their training programmes.

All training systems, however good they are, will require changes with times. With the introduction of the current residency training, we now have an improved training system and organisation in hospitals with institutional director, education office, programme director and protected time for teaching.

You mentioned that surgical teachers are continuing to teach in the same old way. Clinical teachers who have had their own training in the old ways cannot be expected to change unless they undertake specific courses in new teaching methods and become familiar in using them. Even then, I would think it may take a few years to see the change. Close supervision of trainees in all clinical activities and regular assessment and feedback are critical for success and require much time and commitment of teachers.

I understand that a major problem is the difficulty for trainees obtaining sufficient clinical experience within 5 years of residency training. Unlike in the USA, our residents have to fulfill medical registration requirements in the first year after graduation and get very little operative experience in the first year. So, to complete 750 major operations in the remaining 4 years is not practical for most residents.

**PC: This is a very important conversation (laughs). You have identified where the problem is and have hit the nail on the head.**

RN: And of course the patients, the type of diseases, surgical techniques and care delivery have all changed. It's a phenomenal change that has occurred from the 1960s to '90s.

Most elective surgical patients do not require hospital stay for complete investigation or even for preoperative care. They are admitted, operated and discharged either on the same day or within a couple of days. The use of interventional radiology and wide use of minimally invasive surgical techniques have made open procedures infrequent in general surgery and patient stay shorter in hospitals.

The downside of this development is that residents have less opportunity to interact with patients and fully understand and take care of pre and postoperative care and complications. Furthermore, the mandatory time off and restriction of duty hours have also had a negative impact on training.

**PC: So, for the same number of patients, the training is different now?**

RN: Certainly. The training also must change because of

limited time and new techniques of endoscopic, laparoscopic and robotic surgery. In the present day, it is not practical to learn these skills on patients in the operating room. Fundamental abilities such as psychomotor skills, visuo-spatial ability and depth perception can be learnt and practised in skills laboratory. Perhaps, we have to make greater use of simulation to teach surgical skills like in the US centres.

One of the concerns we hear often is the lack of sufficient specialists and teachers. I think it is not in terms of number but certainly specialists who are able, willing and enthusiastic to teach the next generation. Unfortunately in Singapore, we have a divide between those who are in public hospitals and those outside and there is little integration of the two.

I wonder if the Academy of Medicine would have a role in coordinating better integration of all specialists in Singapore for the common purpose of teaching and training of future specialists. As this would involve major policy changes and sacrificing both time and income of specialists, I am not too optimistic of the outcome!

**PC: The ethos has changed?**

RN: In the 1960s, I remember teaching of medical students and junior doctors was considered part of normal duties of a specialist in public hospitals. In fact, many among those pioneers were passionate teachers and did not expect any remuneration. They were also not accorded any academic titles either. Now, the scenario is totally changed!

**PC: It's no longer so altruistic?**

RN: It is unfortunate but true. There was a time when the Academy was expanding its activities through the formation of various Chapters. But many specialists then did not want to join as member of the Academy and those who were members then were reluctant to serve on committees. In many other countries, the fellows or members of their professional Colleges would gladly come forward and consider it a privilege to be on college committees.

I have always thought that being a professional is a unique privilege for you to spare time for teaching and training others and also volunteer in activities of professional colleges. It can improve the public perception of the profession as a whole and promote professional standing.

**PC: Although the concept of Academic Medicine and of Academic Medical Centres in Singapore to drive translational and clinical research was first mooted in 2007 (almost 10 years ago), many would say we have not seen much evidence of Academic Medicine on the**

**ground. In General Surgery specifically, it appears that a lower proportion of surgeons and surgical trainees do any form of academic research, receive grants or publish, in spite of more abundant funding available. Anecdotally fewer surgeons seem interested in teaching. Do you think that the culture in General Surgery has changed to one that is less aligned with research and academic surgery? If so, what is the reason and how can these be reversed?**

RN: I would agree that until the 1990s, there was very little medical research in Singapore. There was no leadership with research experience, no facilities, no funding and no such thing as a research culture. The Academy of Medicine in order to promote the culture then had formed a research committee and later established the Seah Cheng Siang and Yahya Cohen lectureships and Johnson and Johnson, Roche and Glaxo fellowships.

It is remarkable that clinicians like Professor SS Ratnam still achieved outstanding international reputation for clinical research. During that time, there were just very few notable clinicians who sacrificed their time and published papers based on their clinical experiences. However in the last 20 years, the whole environment has changed. The formation of Academic Medical centres and the 3 medical schools have spurred great academic activity in Singapore. So if you don't see much evidence of academic medicine on the ground, I would think perhaps 10 years is too short a time.

I believe the main reason for the lack of academic research in General Surgery was the lack of interest, facilities and surgeon leaders with clinical research experience. In contrast, during my training years in UK, research publications were essential for those aspiring for consultant positions in University or teaching hospitals. It was not uncommon then for many young surgeons in England to go to USA for further research experience. In Singapore, publication was perhaps desirable but was not a requirement for promotion even in the University.

**PC: Surgical leadership is particularly important. When you were HOD in the Department of Surgery at SGH, that department was perceived as a highly academic department although it was not a University Department. To what extent do you think the philosophies and qualities of the surgical leadership important to academic surgery? What would these philosophies and qualities be?**

RN: No one will dispute that leadership is critical in any organisation. After having worked abroad and in the Surgical unit at the General Hospital, Singapore (SGH) for many years I have had a fair idea of what makes a good teaching surgical unit (not using the term academic). Later,

it was at Thomson Road Hospital (renamed as Toa Payoh Hospital) when I was HOD that I first introduced these ideas and later in SGH in 1985.

The basic philosophy is simple and familiar to all. Clinical excellence in patient care combined with good teaching and training and encouraging clinical research. Of course that is easier said than done! How well you put these in practice will determine whether or not your department is perceived as an academic department. That's where leadership matters.

I would say that we achieved a few important things: with new innovations in clinical care and surgery, the surgical bed occupancy soon increased to maximum capacity, overall mortality and morbidity in high risk operations were significantly reduced, and patient and staff satisfaction very

much improved. The department at Toa Payoh Hospital became popular for training of postgraduates and the trainees consistently obtained success in their examinations. Evaluation of clinical work and presentation of papers at clinical meetings became routine for trainees, some of whom published papers for the first time.

The leadership is not about creating a chart of so-called academic activities and names of people in charge but motivating all levels of staff to do their best and pull the cart forward together to your goal. It means ensuring certain amount of discipline at work, maintaining high standards, accountability and integrity and a commitment or passion in work. I think it is most important for the leader to set the tone not by threats but by personal example.

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