Viewpoints *on* Residency

IT HAS been almost five years since the residency programme was introduced to Singapore's healthcare landscape. Just how different is the residency programme from the previous system and what is its impact on the residents? We interviewed four professors who are actively involved in the Graduate Medical Education Committee to find out more about their perspective on the programme.

A/Prof Joseph Thambiah is a senior consultant and head of the Musculoskeletal Trauma division, Department of Orthopaedic Surgery, National University Hospital (NUH). He is both a fellowship-trained spine surgeon and trauma surgeon. A/Prof Thambiah is actively involved in undergraduate and postgraduate education, and has been the programme director (PD) of the National University Health System (NUHS) orthopaedics residency programme since its inception. To him, medicine is more than a profession; he currently leads bi-monthly medical missions to Batam and organises weekly mobile medical clinics that provide free healthcare to foreign workers and the elderly poor living in one-room HDB flats.

A/Prof Thambiah (second from left, standing) posing at the photo booth

Now that the first residents accepted into the residency programme have become registrars, how do you feel their performance compares to that of trainees from the old system?

In my opinion, the performance of the current senior residents is equivalent to that of their predecessors.

One of the pluses of the residency programme is that we have a clear idea of the quality of work expected from the residents when they turn registrars. A negative is the decreased amount of time spent gaining experience due to the regulation of duty hours, though this is balanced by a reduction in resident fatigue.

However, whether the residents have the requisite amount of time to gain clinical experience and are ready for greater responsibilities is still a concern. We try to overcome this by getting the residents to do tag-on calls with senior residents and registrars six months before they become senior residents themselves. We also make sure that there is always an additional level of supervision for them to turn to. I think one trait of the old system was that we threw the new registrars into the deep end and allowed them to sink or swim; more often than not, they swam and learned from the experience, but this is not optimal. We aim to provide more consistent training in the swimming process so that they can keep their noses above water for far longer. However, I sometimes worry that this method may be too much molly-coddling, and as we all know, too much stress shielding is not good for fracture healing!

What do you think are the challenges faced by your residency programme?

When I first started as a programme director, I thought I was being punished, since I had to learn the language of the Accreditation Council for Graduate Medical Education (ACGME) from scratch. I had to complete the programme information form and go through it word for word, as the ACGME would fault us if even a comma was out of place. (Thankfully I was well trained by my mentor Prof Balasubramaniam.) The other challenge was getting the faculty to accept that the paradigm had shifted and that the ACGME is the new reality.

Another challenge we face is contextualising the training programme for our own national purposes. With the replacement of the old training programme, we may have thrown the baby out with the bath water, as there was much good that we could have retained. Personally, I see no reason why we have to slavishly follow everything the ACGME requires of us. We should have the confidence as a nation to develop our own colleges for orthopaedics. Scotland, with a smaller population than Singapore, has two Royal Colleges of Surgery. Perhaps, this is what we should aim for in the future; a national system that combines the best of both worlds.

We may also be forcing our junior residents to choose their specialties too early. Perhaps, there should be a Ministry of Health (MOH) directive that all graduates must go through mandatory housemanship and a year as a medical officer (MO) before appearing for interviews. By that time, they may be better able to make a sound decision concerning what will affect them for the next 40 years of their lives.

Similarly, medical students are choosing their specialties far too early. In my opinion, each cohort of residents should have some degree of homogeneity in their postgraduate experience. However, when we select residents too early on, we may end up placing an undue amount of stress on them to catch up with their more experienced fellow residents. If such an MOH directive is in place, it may discourage the various programmes from "poaching" medical students early for fear of losing them to other programmes.

Asst Prof Alfred Kow is currently the Assistant Dean of Education in Yong Loo Lin School of Medicine. He is actively involved in undergraduate education in surgery in NUS. In addition, he is also a core faculty member of the NUHS general surgery residency programme. He was previously the associate programme director for NHG-AHPL general surgery residency program at Tan Tock Seng Hospital and Khoo Teck Puat Hospital. He is truly excited to participate in improving surgical education in Singapore.

Now that the first residents accepted into the residency programme have become registrars, how do you feel their performance compares to that of the trainees from the old system?

Much preparation was put in place to ensure that the residents are well supervised and that they mount the learning curve safely and smoothly. Simulation training, more focused on-the-job training, as well as better organised and intensive education activities allow the senior residents to better understand surgical practices. We also crafted the float systems to comply with the work hour restriction and at the same time, allow the residents more focused training in emergency surgery. This has helped them to concentrate their learning in emergency surgeries (eg, appendicectomies, hernias, simple laparotomies). By the time they turn registrars, they are well prepared to handle the role. We have also scheduled them to shadow registrars on call from as early as the beginning of the third year residency, to prepare them to step up to the job when the time comes. The residents are very motivated and I am extremely pleased with their performance. While the younger senior residents may not be able to handle complex operations on their own, the faculty members are

Dr Alfred Kow and his family

readily available to help. That is the beauty of the training system – ease of consultation and better supervision.

What are the benefits of the residency programme?

A structured teaching system with focused outcome is the key to a successful residency system. It has also created a pro-teaching environment for the residents to learn, instead of a "work-oriented" routine. There is a great paradigm shift in the mentality of the trainers and faculty members as well. Personalised supervision is an important feature in the residency system. Mentees can explore their full potential with the faculty members and their mentors to gain as much as possible from the training system. Work hours are controlled and there are fewer issues with fatigue in the residency system. Some may argue that this might compromise training quality, but I would say that, if the system is crafted properly, it should be a win-win situation for both the faculty and the residents. Resident satisfaction is very high (but I hope it will not lead to complacency and over-demanding behaviour from the residents).

What do you think is the future of your residency programme?

It is still a new and evolving system. We went through some growing pains in the beginning, but it is now slowly entering a stable state. The system should get better as long as the whole fraternity of surgeons in Singapore (as trainers and faculty members) put in effort to make surgical training better for the next generation of surgical residents. Of course, this is only possible with the administrators and leaders in MOH working hand-in-hand with the faculty members on the ground.

A/Prof Shirley Ooi is a senior consultant and former chief of the Emergency Medicine (EM) Department at NUH. She has been the Designated Institutional Official (DIO) of the NUHS residency programme since 2009 and was the chairperson of the Emergency Medicine Specialist Training Committee from 2009 to 2011. She has won multiple teaching and mentoring awards, with the most prestigious being the National Outstanding Clinician Educator Award 2013. She was also the winner of the National Medical Excellence Team award in 2011.

How is the training of the current residents different from that which you received when you were a trainee?

It is definitely very different. As one of the pioneers of EM in Singapore, there was hardly any structured training. Though we had guidelines on what the relevant postings were in order to qualify for our FRCS (A&E) exams, we basically rotated from one posting to another with hardly any goals or objectives for each of our postings. There were also no dedicated mentor or posting supervisor to guide us during the basic specialist training (BST) phase, and we depended on opportunistic learning and tutorials from our seniors to prepare for our exams. The gaps in our knowledge were sometimes only revealed when we were taking the high-stakes FRCS (A&E) exams in Edinburgh, as there were no local exams then!

In contrast, the current EM residency programme is well structured and administered by a programme director with 0.5 full-time equivalent (FTE) protected time and a core faculty with 0.2 FTE protected time. The programme is externally accredited by the ACGME-I, and has a curriculum with clear goals and objectives. Uniform training is in place and learning is no longer left to the "luck" of the trainees. Each resident has a dedicated mentor who follows them through the full five-year period of residency and there are rotation supervisors as well. Formative feedback is emphasised so that the residents know how they are doing. There are also annual in-training exams to help residents identify where their gaps in knowledge are. As the residents belong to a sponsoring institution (SI) under the leadership of a DIO who oversees the Graduate Medical Education Committee, each SI takes ownership of its residents' training.

Another key difference is that the current EM residents can start their training as early as in their house officer (HO) year, whereas we could

A/Prof Ooi (centre), as DIO, at her 11th run of the NUHS Residency Orientation at Outward Bound Singapore in July 2015 after completing 18 km kayaking round Pulau Ubin with her residents, senior management and faculty!

start our training only after completing housemanship.

Now that the first residents accepted into the residency programme have become registrars, how do you feel their performance compares to that of trainees from the old system?

To answer this question objectively, comparison should be made between similar scenarios. For residents who enter the EM residency as MOs, the product is just as good, if not better. This is because the training that they receive is more comprehensive and holistic. Residents who entered the EM programme as HOs should not be compared with the registrars during my time; who at the earliest would have been in their fifth or sixth postgraduate year. Rather, they should be compared to their peers of equivalent clinical experience in the previous system whose performance they definitely surpass.

As a DIO, I have asked senior clinicians from different specialties about how they view the current senior residents compared to the registrars from the former training system. Unanimously, they concurred that these senior residents, although more junior in terms of age, are just as competent. In fact, one senior clinician opined that current senior residents can function at a level that is one year ahead of previous ASTs! They also felt that the competence level of the residents as a whole is more uniformed compared to the past. Previously, there were excellent and motivated ones who were able to fend for themselves, but there were also those who were very weak even after they exited from the training programme. They attributed this improvement to a better selection system, a more structured programme and the closer monitoring given. In addition, the senior residents have demonstrated better pass rates in their exams.

Therefore, despite the shorter training period, I would still appeal to those comparing the two systems to remove the seniority factor from the equation. Only then can we assess the real impact of the residency system.

What do you think are the challenges faced by your residency programme?

In the past, trainees were virtually guaranteed a job upon completion of their training in a particular department. In the current situation, the aim of the residency programme, as set out by MOH, is for each of the three SIs to train specialists for the whole country and not only for their individual institution. Thus, residents need to have this mindset or they may be greatly disappointed!

Allowing residents to start training as early as their HO year may pose a challenge, because the experience of life in a particular specialty as a medical student may be different from that as a working doctor. It is probably better for junior doctors to choose their specialty after gaining some working experience. In addition, nothing beats real clinical experience. I think a win-win situation would be a slightly delayed entry into the residency programme, after the completion of housemanship, combined with a well-structured residency programme. Then, we will have the best of both worlds!

A/Prof Raymond Goy was the programme director of the NUHS Anaesthesiology Residency Programme from 2010-2015. He was awarded the NUH Teaching Excellence Awards for three consecutive years (2012-2014) and the NUHS Residency Award in 2014. A/Prof Goy firmly believes that the ACGME-I system (with appropriate adaptations to the Singapore healthcare system) is the best change our Ministry of Health has made to our postgraduate training in Singapore. He is passionate about mentoring residents from all specialties. Many residents have benefited from his guidance or received "homework" at the end of a day in theatre.

How is the training of current residents different from that which you received when you were a trainee?

In the past, anaesthesia trainees were allowed to plan and dictate their own BST rotations. This was advantageous, as it promoted self-guided learning. Motivated trainees could pick rotations in hospitals where subspecialty training was available to fill up the gaps in their training. However, this system had several disadvantages. If a trainee was not cognizant of the gaps in his training, he may not choose the appropriate rotations and could end up with deficiencies in his learning.

Furthermore, the Medical Officers Posting Exercise (MOPEX) system was manpower-driven rather than education-driven. Even if the trainees were keen to do the required rotations, the vagaries of the manpower requirements and administrative divide of the different hospitals may occasionally result in them not getting their desired postings.

The ACGME-I residency programme replaces the opportunistic learning of the BST/AST system. All subspecialty training in anaesthesia is now uniformly administered based on the curriculum and educational needs of each trainee. With this system in place, each trainee will get hands-on experience in the full spectrum of anaesthesia practice. The elements of formative resident and faculty evaluation and feedback are also enhanced. There are also competency milestones that the trainees have to work towards in their route to specialisation.

Importantly, it is no longer just about the teaching and receiving of information. It is also about educators taking ownership of a resident's successes, challenges and professional and ethical development.

What are the benefits of the residency programme?

The residency programme offers numerous benefits for the learners, educators, hospitals and Singapore, if we are patient and allow the system to mature.

I believe that the more structured curriculum and the closer monitoring of residents will enable us to consistently produce well-rounded doctors. The more objective system of evaluations and feedback also ensures that the residents are kept abreast of their progress and allows the faculty to step in, when needed, to assist them.

We also make sure that the residents' feedback on the programme are heard and acted upon by the faculty. I particularly enjoyed the "Meet the Residents" sessions with my DIO, which allowed us to identify areas of improvement in the training programmes, the hospital work processes and areas that affect patient outcomes.

What do you think are the challenges faced by your residency programme?

There are multiple challenges, past and present. These challenges help make our PDs more resilient and determined to overcome them for the sake of their residents.

Current medical students and young doctors are entering specialty training earlier and are thus less aware of the rigours and demands of each specialty compared to before. Medical students are placed in an unnecessarily stressful situation of having to decide on a career track without the opportunity of caring for patients and becoming great doctors first; this is the so-called "residency rat race". My advice to young medical students and doctors is this – unless you are certain of your career choice, it would be prudent to take a step back and try out new options before embarking on a residency track; a career has to be driven by passion not obligation, so take your time to explore and embark on a specialty that ignites your passion.

A possible solution is to allow doctors to apply for residency training only in the second post-graduation year so that they would have the opportunity to rotate through more specialties as MOs. PDs must have the foresight and discipline to look at the Singapore system as a holistic national training unit and allow applicants to mature in their outlook before matching them to the specialty. We must also provide active career counselling to our medical students to learn to be good holistic doctors first before specialist training, and dissuade them from joining the rat race before they are ready.

At the same time, the increasing number of residents in our programme has led to fewer spaces available for MOPEX MOs to work in our department, preventing us from evaluating their suitability for residency. We overcame this by performing swaps with our participating sites, giving MOs from their departments the opportunity to work in our programme to prove their worth, while our residents spend time at these partner sites. We hope that this will give MOs who are not yet part of the residency programme the chance to become residents. ■

A/Prof Raymond Goy (first from left) with his pioneer batch of NUHS anesthesiology residents at Outward Bound School