

Future of Nephrology Workforce: Reimagining Educational Value



WORKFORCE

The definition of this term states “people engaged in or available for work in any enterprise or company”. Should we be satisfied in simply creating the future workforce? Or should we redefine in how we even articulate what the future of our profession may look like? Should we not be raising the bar to say that we want to nurture the next generation of compassionate and astute clinicians, scientists, and leaders? If so, then we need to reimagine how to do that and tread with caution as we pass on the knowledge to that generation. In the current issue of *Advances in Chronic Kidney Disease*, the guest editors, Dr. Farouk and Dr. Sparks, have performed an exceptional job of assembling an excellent team of authors who provide narratives related to this vital topic.¹ The following discussion brings out some of the tenets that we may need to consider. These ideas may allow us to introspect on our own journeys in our career.

Let us start with the concept of *The Knowledge Worker*. By virtue of their education and training, knowledge workers are deeply vested in their ideals and are somewhat autonomous in how they think. It is important to remember that knowledge workers respond better when inspired rather than directed. We all would be considered knowledge workers, and our training programs are correct in adopting a combination of didactic and apprenticeship-based learning methods. Thus, the trainer (or the “knowledge manager”) has to develop a trusted partnership with their trainees. The right balance of dictated learning vs hands-on or experience-based learning is necessary to continue to develop the knowledge in any discipline. At a cognitive level, experience-based and evidence-based learning occurs and is governed by different parts of our brain, and we constantly evaluate these as we process information and make decisions. It is not easy to assess the effectiveness of our methods of disseminating this knowledge. So how does one measure and improve the productivity of knowledge workers when one cannot observe what they are doing in the same way one can do for manual workers? We need to be purposeful in finding innovative ways to not only teach but also to assess its effectivity and increase overall intellectual productivity among our peers

and trainees. It is imperative to customize these methods to our discipline if we are to rise beyond our current structure of training programs and adapt to both a changing learning environment and the new trainee.

What is critical thinking? When I was interviewing for renal fellowship (several years ago), one of the faculty members, where I eventually chose to train, introduced me to the concept of critical thinking. I had heard about it—but it had not sunk in until I was in my residency training. The classic skills that we need to be able to think critically include observation, analysis, inference, reflection, explanation, problem-solving, and decision-making. If you notice, these aptitudes include cognitive skills, communication skills, as well as decision-making; thus by nature, critical thinking also involves dissemination of acquired knowledge. For cognitively complex specialties such as nephrology, it is essential that we are deliberate in training the concept of critical thinking. It’s essentially a behavioral skill set rather than new knowledge in and by itself. A case-based learning format is an ideal platform, which provides a lot of opportunity for our fellows and faculty to interact and absorb this concept.

We need to appreciate that *teaching and managing education* are inherently different tasks and skill sets. It is hard to find a bad teacher within any nephrology training program. Yet, in addition to being a consummate teacher, the program director has to perform several altruistic tasks to administer the program, so the teachers can do what they do best. In most traditional university training programs, there is an administrative hierarchy within each department that reports to the graduate medical education of the college. This structure is quite rigid and well regulated. However, the role of the academic divisions/sections is to then create an environment and keep the sacredness of the teacher-student relationship intact. One of the critical elements is to reduce the stress levels during the informational exchange between individuals.

For instance, the educational team leader needs to recognize each educational setting (eg, bed-side rounds, conferences, informal conversations, etc.) and create a conducive atmosphere, customized to each setting, to be able to allow free exchange of ideas. Note that I did not use the trainer and the trainee hierarchy here because it's not always the source of information but the end product of that activity that matters. Program directors and their teams of today and tomorrow, hopefully, are able to gain the necessary knowledge to manage education through both institutional and peer-driven activities focusing on faculty development.

Clinician educator is among the most *endangered skills* in academic institutions, and one may argue, beyond repair without serious introspection and transformation. In an average division of nephrology, each full-time clinical faculty member ("clinician educator") delivers care to at least 25-50 patients on dialysis, spread across several dialysis facilities in the greater metropolitan areas. The current fee-for-service models force some of our best teachers to spend most of at least 2 days per week in their vehicles rather than on the campus. When it comes to ambulatory clinic experience, even the fellow-driven continuity clinics are under minute scrutiny from health care systems and administrators. Thus, although we precept and teach our fellows, we face an uphill task and feel the crushing load of efficiency while we try to remain creative. As far as inpatient services are concerned, every program in the country has experienced increases in volume as well as complexity of patients. In addition, both fellows and faculty spend part of their personal time in documentation into electronic health records. Moreover, depending on technological adeptness, there is a risk that this causes disproportionate distribution of workload among both faculty and trainees.

In a desirable educational exchange, the trainer needs to sustain their professional enthusiasm for teaching and there is a certain degree of spontaneity in this relationship. The current structural models of clinical care, although coexist with models of postgraduate medical education, they continue to erode a teacher's ability and availability to meet the trainees where they need us. This is probably the greatest risk to our discipline, and until we are serious about addressing the elephant in the room, the solutions may come empty. Protected time for education has never been so valuable than it is now, and both the grantor and the grantee of this coveted asset need to handle it with the care it deserves.

And finally, the concept of *deriving and driving educational value* is, in part, culmination of the above discussion. It is similar to creating value in a physician-patient relationship in a model of clinical care delivery. This includes finding the right solutions for the key issues and aligning the entities and incentives to sustain the educational relationships. For instance, every conference we hold/deliver, every continuity clinic we may precept, or every clinical rotation we may plan has to have a deliberate discussion about the value of that activity to the trainee and the trainer and beyond. There has to be an honest and open conversation about this aspect, and programs and faculty need to be adaptable to changing course when necessary. One such successful model is to develop an educational team that is geared to teach a spectrum of trainees from premedical/medical students all the way to renal fellows as well as faculty development. Both the content and the dissemination of the knowledge can be customized for each level to be able to enhance its educational value.

In summary, this issue of ACKD, by no means solves our challenges, but rather allows all stakeholders in our discipline to raise awareness of the importance of the responsibility that lies ahead. We need to inculcate this within the fabric of our training, so we pass on the torch of not just knowledge but of educational responsibility toward the next generation of trainees. I once again congratulate the efforts of all of the authors and guest editors, and more importantly their passion to change the present and the future.

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REFERENCE

1. Farouk SS, Sparks MA. Reenvisioning the Adult Nephrology Workforce: The future of kidney care in the United States. *Adv Chronic Kidney Dis.* 2020;27(4):279-280.