Being a young pediatric cardiologist in India: Aspirations versus reality

I had received an anonymous e-mail from a friend, most likely a recently graduated fellow of pediatric cardiology in India. I kept thinking about that e-mail for a while. It was realistic but quite harsh. It was emotional but intelligent. I felt that it was worthy of a debate and an editorial. In the meantime, I encouraged two enterprising young faculty members in pediatric cardiology to conduct a survey among the recently settled pediatric cardiologists of our country about their satisfaction with training, job settlement, prospects, and financial freedom. The essence of the survey is published as a brief communication in the current issue of the annals.[1]

The anonymous e-mail started like this: *"The allure of fascinating physiology and glamour of interventional cardiology pulls a pool of talent into the field of pediatric cardiology in India, but once the training is over, there are very few, if any, takers of this supposedly fine concoction of knowledge and skill."* The e-mail had some disturbing statements and some hard-hitting questions including, *"The world outside just doesn't need you, whether you are good, better, or the best. Training should never stop throughout life, but then, it should also not start after completing the training program. Not just the individual, families suffer the consequences. After all the hard work, you would think that hospitals will queue for you, but the opposite happens in the end and it's the opaqueness right at the admission process that is responsible for the same. One can ignore money, one can ignore preferred city or state, one can even be prepared for long years required for experience, but all these things have a basic requirement-Job. And they are not there in sufficient numbers. Who oversees how many jobs are out there in the field to not make this degree just an ornamental laurel?"*

Is our subspecialty training in India failing to deliver? Or is it the over-aspirations of the generation next? We wish to analyze the issue in detail in this editorial.

NUMBER OF PEDIATRIC CARDIOLOGISTS TRAINED IN INDIA: HAVE WE REACHED THE SATURATION POINT?

In recent years, pediatric cardiac programs run by the National Board of Education, besides Doctorate in Medicine (DM) pediatric cardiology and numerous other programs run by individual institutes, have steadily increased the numbers year after year. From a country's perspective, this is much needed. A country of 1.4 billion population with an estimated 130 million annual childbirths has <500 pediatric cardiac specialists, which is woefully inadequate by any standards.[2] With these numbers, it is perplexing to even think that we are remotely nearing a saturation point. The answers to this paradox include the lack of adequate job opportunities, less than optimal number of public-funded pediatric cardiology setups, and the nonviable nature of standalone pediatric cardiac setups in the country, all leading to a less than required buoyancy to absorb the trained talent.

BEING A YOUNG PEDIATRIC CARDIOLOGIST IN INDIA: PERCEPTIONS OF THE NEXT GENERATION

The concerns of the younger generation stepping into a career as a pediatric cardiologist in India must be seen in a larger context. The Indian society is more aspirational than ever before, where the success is often measured in financial terms. For the same reasons, most students after their school education are not opting for medicine as compared to other fields such as engineering and finance. Furthermore, a lot of super-specialty postgraduate medical seats in India remain vacant. Even though the concerns expressed in the e-mail may be passed off as irrational aspirations of an impatient younger generation, the results of the survey among 138 younger-generation pediatric cardiologists by Sachdeva and Dhulipudi highlight a deep-rooted systemic problem.[1] The major pointers of the survey are summarized in Table 1, which suggests an alarming situation that needs immediate attention and quick action. However, we do not have reliable data to compare with other Indian subspecialties of medicine, surgery, or pediatrics. However, a majority of early career pediatricians in the US are noted to have career (83%) and life (71%) satisfaction.[3]

BEING A YOUNG PEDIATRIC CARDIOLOGIST IN INDIA: KEY CHALLENGES

There should be room for a well-trained, competent person at the end of a 3-year course in pediatric

cardiology, but the problem is, that there is neither adequate training nor jobs even if one is well trained.

Lack of adequate job opportunities

Perhaps, the greatest challenge for our specialty in India is the disproportionate concentration of pediatric cardiac centers in the Metros, which are possibly reaching a saturation point. The sheer lack of awareness about the importance of the specialty and the lack of perceived priority as well as its need for intense resources has led to a scarcity of units of pediatric cardiology in the government setups. Lack of corporate interest in pediatric cardiac programs due to poor revenue generation, exorbitantly costly equipment, and being too resource-intensive has further exaggerated the problem. Pediatric cardiac services in private and corporate hospitals often piggyback on adult cardiology services and are usually not profitable. A few standalone pediatric cardiac centers could not establish themselves and even a few established centers faced an existential crisis during the COVID-19 times.[4] All these factors are responsible for the concentration of care usually in the private and corporate forms in the larger cities far away from the needy populations.[2] The location of the current centers offering DM and Diplomate of National Board (DNB) pediatric cardiology are summarized in Figure 1. Some of the charity hospitals are the only exceptions to these metrocentric pediatric cardiology training centers in the country.

Table 1: The major causes of concern among the younger generation of pediatric cardiologists in India (*n*=138 surveyed)[1]

Nearly half (47%) found it difficult to secure even their first job
76% reporting financial growth as poor or average
One-third do not recommend pediatric cardiology as a career option for the younger generation
Only one-third are involved in regular academics
>90% reporting research opportunities as poor to average
90% have either no publications or less than five publications in their lifetime
Training in fetal cardiology, electrophysiology, and GUCH – rated average to poor
Nearly half (54%) feel it is essential to specialize more – no courses on offer

GUCH: Grownups with congenital heart disease

Such concentration of talent and resources across only a few cities is not desirable for the organic growth of the specialty in the country. For instance, in a city like Mumbai, within a radius of maybe 30 km, we have 7–8 pediatric cardiac centers competing for the same patients. As all of these are private centers, it creates a lot of pressure on the clinicians to generate adequate number of patients for surgeries and interventions to sustain high-volume programs. Often these youngsters travel across the state over the weekend to get more patients, a system of care not sustainable over the long run. Most of the young physicians are not only responsible for bringing in the patients but also constantly struggle to arrange the funds for the patient's procedures. The prospect of establishing even a modest practice in the peripheral centers from where the bulk of the patients come is recognized as difficult by most. The survey suggested that only around 10% have an individual practice, not attached to an institution.[1] Whereas a concurrent general pediatric practice has become the common phenomenon in tier 2 cities, thus generating much-needed revenue, it limits pediatric cardiology practice to doing only a few echocardiograms here and there squandering away the skills learned, and years invested during formative years.

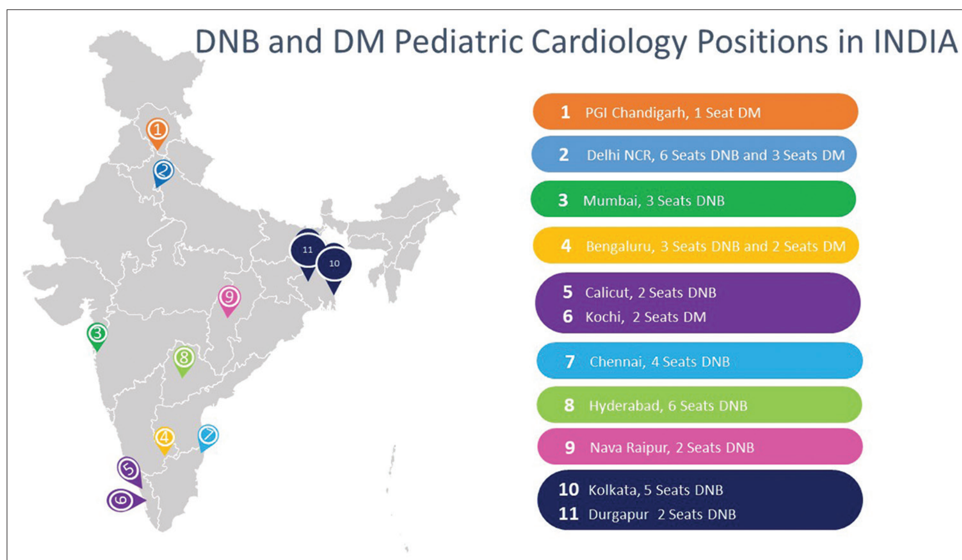

Figure 1: Total number of Doctorate in Medicine and Diplomate of National Board in pediatric cardiology per year available across India. DM: Doctorate in Medicine, DNB: Diplomate of National Board

Very few states support the free treatment of children with heart disease and in general, have more widespread availability of pediatric cardiac centers and more youngsters taking up the field. However, many of these centers are focused on offering diagnostic services and interventional device closures, far from serving as holistic pediatric cardiac centers operating on neonates with critical heart disease. The most important part of this puzzle is the further lack of pediatric cardiac surgeons and specialized anesthetists, perfusionists, and nurses.[2] The increase in the number of trained pediatric cardiologists in India is not commensurate with the increase in other specialists required for running a successful program, resulting in a skewed focus on interventional pediatric cardiology.

Most of the common diagnostic, as well as therapeutic cardiac catheterizations, are done by adult cardiologists at small to medium or even some large-scale private/corporate centers,[5,6] so they would not need to hire and pay for an additional pediatric cardiologist. Moreover, adult cardiologists have rotatory pediatric cardiac postings during their residency in most of the centers, so many are well trained or at least as well trained as pediatric cardiology fellows to perform the same work. The lack of clear regulation on who can perform a pediatric cardiac intervention in India is a serious lacuna.[6] In fact, almost all the top pediatric cardiologists out there in India are DM adult cardiologists by training, says volumes about the situation.

Lack of uniform training programs

Currently, in India, only seven candidates per year are getting trained from the traditional leading institutions of repute [Figure 1]. A significant number of candidates are getting trained at for-profit private and corporate hospitals. It is often alleged that some of the fellowships are started to hire cheap labor to get mundane day-to-day petty work done, and these centers have no intention of training that person adequately to find a good job. This criticism, of course, is not limited to pediatric cardiology but DNB courses in general. Hence, the career ladder of senior residency, attending, associate, junior consultant, etc., kicks off where a fellow toils hard to get exposure and experience all the while being at the mercy of his/her senior consultant. Often, the teachers also lack experience in academics and research. On-the-job training is a deeply ingrained erroneous custom perpetuating solely because of the misery of the poor fellow with few options and lack of medium to raise the issue, the system that has only worsened year after year. At the end of training, the mentee is perceived as a competitor for the mentor. The requirements for an ideal Indian pediatric cardiology training program are eloquently summarized elsewhere.[7]

An outdated examination system

DNB examinations have a multitude of problems, both in theory and in practical, mainly stemming from two sources. Impractically, set outdated questions/examination patterns in theory/practical focusing either on theoretical-only knowledge which just tests recall ability or basing practical examinations predominantly on redundant clinical skills which are hardly utilized in day-to-day practice. It is often alleged that unreasonably high standards are set, with an inherent bias against DNBs. There is no denying the fact that cardiology and pediatric cardiology exit examination systems in India have evolved over the years; however, the speed and quantum of change may be insufficient for the current times.

Lack of opportunities for further specialization

Nearly half the surveyed participants felt that there is a need for subspecialty training in India.[1] Subspecialty training in niche specialties such as pediatric electrophysiology and even heart failure and transplantation would only be beneficial if we can identify a system to refer the patients to the subspecialists so that they have enough patient load to devote all their time and efforts to the subspecialty. Otherwise, everyone just dabbles in a subspecialty as an area of interest and continues their general pediatric cardiology practice.

Numerous Indian-trained fellows have gone, or better put, have to go to Canada, the UK, New Zealand, or Australia, just to earn an additional degree, as if the one already at hand is not enough, and quite a large number of them settle there as prospects after returning to India are perceived to be not that good in comparison. Information on how to enroll in foreign fellowships is also scarce and limited to individual persons and/or centers only.

Lack of information about the field at the outset

DNB counseling centers provide very little, if any, information about the field at the time of center allocation, especially practical points including the need for long postfellowship training years and job prospects; so, what starts in the blinding lights of the top ranking in the entrance examination and dreams of becoming an interventionalist after training ends in blinding darkness of joblessness and directionlessness. It is the job of the counselors who have wide experience in the varied fields to appropriately guide the candidate on the pros and cons of the subspecialty vis-a-vis general pediatrics.

BEING A YOUNG PEDIATRIC CARDIOLOGIST IN INDIA: HOW TO IMPROVE THE SITUATION?

What does a fellow expect from the senior pediatric cardiac fraternity? They need job opportunities,

Table 2: Suggested measures to improve standards and satisfaction of young pediatric cardiologists

Training and examination
Training centers must have an adequate number of patients and teachers
Uniform training criteria and rigorous periodic quality checks
Focus on teaching practical skills that the job demands
Separating pediatric and adult cardiology training curriculums to not provide unilateral overlapping training
Modernizing the exit examination
Ensure exit examinations are completed before course completion
Make research an important component of training
Information
Adequate information about the field at the admission counseling session
A pan-Indian central job directory creation
Information on international training opportunities and how to pursue them
Pediatric cardiology journals should have a student section where students can freely express themselves
Opportunities
Appropriate assessment of need and then the further expansion of training seats
Creation of more paying jobs
Advocacy with the governments, central as well as various states, to create a cadre of pediatric cardiologists
Make it more lucrative for the private sector to set up pediatric cardiology units
Cover states that do not have pediatric cardiology setups
At least in the prominent medical colleges of all states
Universal health coverage –to include all forms of pediatric cardiac procedures
Compensation and support from the government schemes to be adequate
Creation of an online registry/directory for pediatric cardiology professionals

professional guidance, true mentorship, adequate information, and a professional support platform. Some of the suggested measures to improve the prospects of a young Indian pediatric cardiologist are summarized in Table 2. Most of the problems are due to a system that is under evolution and yet to mature. The problems are multidimensional and there is no singular solution on offer.

More public spending on resource-intensive fields such as pediatric cardiac surgery is the key. However, the wish is out of sync with the government priority. Some of the seats in the government sector remain vacant due to lower salaries, job prospects, and career progression opportunities. We need uniform health-care coverage, which offers adequate insurance coverage for all forms of essential pediatric cardiac surgeries and interventions. We need to glamourize and glorify the field beyond interventions. Most of our annual meetings are also becoming mostly intervention oriented.[8] We need to set our priorities correctly. Interestingly, the priorities for our patients and our younger generation of pediatric cardiologists match. The thought leaders have to come together and improve the situation on the ground quickly; otherwise, pediatric cardiology would also suffer the ignominy of no-takers in the near future. It is time to increase the demand and quality to consume the increased supply of trained workforce.

“The equilibrium between supply and demand is achieved only through a reaction against the upsetting of the equilibrium.”

—David Harvey

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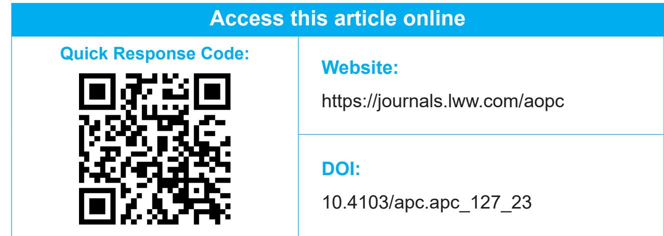

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