



**Structural Heart?**  
1. It is a rapidly evolving field of research  
2. It is a multidisciplinary field  
3. It is a field of research that is  
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**Heart team?**  
1. It is a multidisciplinary team  
2. It is a team of experts in  
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**Heart?**  
1. It is a field of research  
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# Structural Heart

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# Returning to Fellowship for Formal Structural Heart Training After Being in Clinical Practice: Challenges and Advantages

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OPINION



## Returning to Fellowship for Formal Structural Heart Training After Being in Clinical Practice: Challenges and Advantages

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I recently returned to fellowship training in structural heart disease (SHD) after being an interventional cardiologist (IC) in clinical practice for 4 years. You might ask: why would I do this and embark on an 8<sup>th</sup> year of post-medical graduate training?? After I was accepted into my structural heart fellowship program, I shared my exciting news with several friends from previous years of cardiology training, and I was met with the same exact baffled inquiry. One friend even told me that he thought I was crazy and felt convinced that I was having an early, midlife crisis. While not the most conventional move for a young interventional cardiologist a few years into his career, it was a move I definitely wanted to make. In this paper, I will share the reasons for my decision to complete a formal fellowship as well as some of the challenges and experiences I have encountered along the way, in the hopes that I can help any practicing IC make a smooth transition back to a fellowship year so long as you share the same passion I have for structural heart disease.

In 2014, I finished my interventional cardiology fellowship training, which was a very strong and very hands-on IC fellowship focused on complex coronary and peripheral interventions. However, my exposure to SHD interventions was limited to atrial septal defects (ASD)/patent foramen ovale (PFO) closures and valvuloplasties. After I finished my training, I took an IC position in a private group hospital setting where early on in practice, I quickly developed greater interest in structural heart interventions. I was attracted to the amazing amount of innovations in the structural field and I wanted to be part of it. My interest led me to attend multiple educational conferences and professional meetings where I had the opportunity to meet several prominent structural interventionalists. I tried to obtain more experience on the job by visiting hospitals, both in the United States and in Europe, for short electives. However, I quickly realized that the structural realm was evolving and growing so fast that structural heart no longer meant only transcatheter aortic valve replacement (TAVR). I realized that to be a well-rounded structural interventionalist, it was vital to have exposure to TAVR, transcatheter mitral valve replacement (TMVR), MitraClip, left atrial appendage occlusions, ASD/PFO closures, paravalvular leak closures, and other procedures. Additionally, I recognized the importance of a solid understanding of pre-procedural planning imaging which included advanced echocardiography with 3D and Cardiac Computed Tomography (CT) Angiography. Moreover, I also understood that structural heart procedures involved

a structural heart team with the dynamics encompassing a multidisciplinary team of structural interventionalists, cardiothoracic surgeons, advanced cardiovascular imaging specialists, program coordinators, nurses, mid-level practitioners, and others. While practicing as an interventional cardiologist, it became apparent to me that in order for me to be fully trained in SHD, I had to bite the bullet and dedicate myself full time to a formal SHD fellowship training program.

One could argue that it is not necessary to complete a dedicated 1-year or even 2-year structural heart fellowship in order to perform structural interventions. Is someone able to become trained in SHD while working by means of proctorship? The most honest answer is that you probably could. In fact, most operators in the field do not actually have any formal fellowship training in SHD. Most of these operators were “grandfathered in” and have been involved in the field since the early stages of TAVR, which has been around for more than 15 years. There are ICs who have been performing SHD interventions for a long time and have acquired extensive SHD experience. If you are lucky enough to work at an institution where you have a mentor or a senior partner who is willing to train you as a junior faculty, you may be able to acquire the necessary training while practicing, but these opportunities are few and far between and in my opinion rare or non-existent. For most young ICs coming out of fellowship, it will be difficult to obtain the necessary training of robust quality while working, and may probably take longer to achieve the quality of training and experience that SHD fellows acquire in their dedicated fellowship.

As a working and practicing IC Attending, considering a return to training for a SHD fellowship entails many things to first think about. With respect to your application, the most important factor is that you have to be committed and really want to do it. Training in SHD is not just an extra skill set to acquire. You will have to dedicate yourself to every aspect of the field. SHD fellowship positions are very competitive, and there are many bright interventional cardiology fellows currently in training who are looking for a SHD fellowship spot. If you are not fully dedicated, your application will not be taken seriously. To be quite frank, practicing ICs who are choosing to return to fellowship have factors that work against us, factors that IC fellows who are choosing to do an additional fellowship year do not deal with. Therefore, you



have to prove the argument that not only are you committed to the SHD program but also that you are trainable and amenable to instruction, education, criticism and direction. It is a tough debate but worthwhile.

There are several structural heart meetings throughout the year where you can network, make connections and request opportunities to visit other hospitals in the United States, Europe or Latin America to observe structural cases. I also recommend talking to your local structural team and get involved by attending their weekly structural meetings and observing cases. Do not only just try to obtain certification in cardiac CT but also attend CT courses and learn how to use 3-dimensional post processing software. Reach out to your previous fellowship mentors and ask for letters of recommendation with ample time to submit your applications early.

It is also very important to understand that the current job market for structural interventionalists is not robust. Jobs in the SHD field are limited with purely structural heart job positions very rare. Many of the SHD job opportunities that do exist are not publicly advertised, which means the only way to receive consideration is through a recommendation from a mentor or through networking. An ideal situation would be returning to your current place of practice to improve and expand an existing SHD program or to develop a new program which is not easy. In order to start and build a new SHD program, you will need the full support of the partners from your group, cardiothoracic surgeons, hospital administration as well as a dedication of resources, all of which are necessary to create a successful and healthy environment for a strong SHD program.

Economic and family factors are also extremely important considerations when deciding to leave the practicing world and return to being a fellow. Returning to fellowship obviously implies reverting back to a fellowship salary which obviously entails a significant pay cut. Therefore, you have to also plan financially for the return to a fellow's life. Some SHD fellowship programs will hire you as a junior attending and have incorporated some type of moonlighting around the program. However, most fellowships will simply pay you a base fellows' salary. If you have been in practice for a while, it is possible that you may already have a family which may include children. Because SHD fellowships are smaller in number, you may have to move out of state or even a few time zones for a SHD fellowship. Moving children away from their familiar environment and into new schools can represent a challenge. In my case, I have a wife, a 1-year-old son and a newborn baby. I discussed all the implications with my wife before I applied to the fellowship because this move would also disrupt her life. I am lucky that she was and

continues to be very supportive and understands my passion for career advancement, including my strong desire to become a structural interventionalist. We saved money during my years in practice and while planning to return for fellowship.

The transition from being an attending in clinical practice for years to again being a fellow can be challenging. One will go from being a Staff Attending definitively making the medical decisions for patients to now re-learning how to take directions from your program director and other staff attend with respect to the treatment of a patient. This requires you to learn your attendings' personalities and their way of practicing medicine both inside and outside the cardiac catheterization laboratory, which may or may not differ from your own methods. Your main strength as a candidate and later as a fellow is that you have more experience than any other interventional cardiology fellow in training. You have developed a style, a skill set and have experienced complications on your own. It is important, however, for you to remain open-minded and receptive to learning different ways of doing things, even with respect to basic or simple aspects of interventional cardiology such as getting vascular access. You must be humble and a team player because after all, SHD entails a structural heart team.

Being 6 months into my 1-year structural fellowship, I am more than certain that I made the right decision for my life and my career. I am lucky to be the only fellow at my institution, which means I am exposed to all of the structural cases. My attendings treat me more like a partner and a colleague rather than a fellow. My fellowship is very hands-on and very robust, which mean that I am getting excellent training in all aspects of the SHD field.

At the end of the day, the most important factors for the jump back to a fellowship in SHD are passion, motivation, and commitment to structural heart disease. After so many years of medical school and post-medical graduate training, we should go to work, have fun and enjoy what we do on a daily basis. If that means changing gears temporarily to pursue advanced training in SHD by means of an additional fellowship year, then I encourage you to do so. I have been more than happy about my decision and I am more than happy to share more details about my experiences in applying to SHD fellowships as well as my current experience if it would help in making the leap as I have done. Thus, the challenges may be great but so are the advantages.

### **Disclosure statement**

No potential conflict of interest was reported by the author.