

International Residency Program Directors on Implementing Educational Transformation: A Qualitative Study of Their Experiences and Strategies for Overcoming Challenges

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ABSTRACT

Background Residency program directors (PDs) need to navigate diverse roles and responsibilities as clinical teachers, administrators, and drivers of educational improvement. Little is known about the experience of PDs leading transformation of international residency programs.

Objective We explored the lived experiences of international residency PDs and developed an understanding of how PDs manage educational program transformation.

Methods Using a phenomenological approach, semi-structured interviews were conducted with current and former PDs involved in the transformation to competency-based medical education in the first international settings to be accredited by the Accreditation Council for Graduate Medical Education-International (ACGME-I). Thirty-three interviews with PDs from Qatar, Singapore, and the United Arab Emirates were conducted from September 2018 to July 2019, audio-recorded, and transcribed. Data were independently coded by 2 researchers. A thematic analysis was conducted and patterns that reflected coping and managing educational reform were identified.

Results PDs described distinctive patterns of navigating the educational transformation. Five themes emerged: PDs (1) embraced continuous learning and self-development; (2) managed change in the context of their local settings; (3) anticipated problems and built support networks to effectively problem-solve; (4) maintained relationships with stakeholders for meaningful and constructive interactions; and (5) focused on intrinsic qualities that helped them navigate challenges.

Conclusions International PDs were presented with significant challenges in implementing educational transformation but coped successfully through distinctive patterns and methods.

Introduction

Academic medicine constantly evolves and transforms, shaped by technological and educational innovations, regulatory requirements, and population health. Educational leaders are often at the forefront of these transformations. As competency-based medical education is becoming the global standard for postgraduate training, a large cadre of clinician educators is needed to implement effective teaching, supervision, and assessment of medical trainees.¹ Among clinician educators, program directors (PDs) are accountable for the leadership and implementation of many aspects of postgraduate training. In addition to their patient care duties, PDs have multiple responsibilities, including trainee recruitment, teaching, faculty development, program administration, and change management. These diverse

roles and day-to-day challenges make PDs particularly vulnerable to stress and burnout, leading to high rates of PD attrition.²⁻⁴ Studies estimate that one-third to half of PDs have been in the role for less than 3 years.³⁻⁵

Understanding how PDs perceive and manage the stress of educational transformation may help minimize PD turnover in change management processes. Most studies addressing this topic have been conducted in the United States and are Western-centric—less is known about the challenges faced by PDs in international institutions, where the transformation to competency-based frameworks is relatively new. Qatar, Singapore, and the United Arab Emirates (UAE) were the first countries to transition their postgraduate programs from time-based, apprenticeship models to competency-based medical education and successfully receive accreditation from the Accreditation Council for Graduate Medical Education-International (ACGME-I).^{6,7} These nations offer unique opportunities for research on health care education, as they have been in the forefront of

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globalization, innovation, and rapid infrastructure development in recent decades.^{8,9} In each of these countries, the educational transition was government-mandated and occurred within a brief time frame, with the burden of reform falling on educational leaders and teaching faculty.^{6,7} While early perceptions of the change process were positive, with 76% of educators agreeing that the educational transition was worthwhile and 77% intending to remain in academic medicine,^{10,11} studies showed that those in leadership roles (PDs and associate PDs) were significantly less likely to report an intent to stay in academic medicine.¹¹ Long-term analysis of PDs in these international programs did, indeed, find a high rate of attrition, with 80% of programs changing PDs since inception.⁴

The purpose of our study was to better understand how international PDs perceive and manage the challenges related to implementing competency-based medical education as part of their educational leadership roles.

Methods

Study Design

We conducted a qualitative study employing a phenomenological approach^{12,13} to explore the lived experiences of PDs and understand how they manage challenges at a time of educational program transformation. We followed the Standards for Reporting Qualitative Research.¹⁴

Setting and Participants

We interviewed current and former PDs in Qatar, Singapore, and the UAE. Singapore programs received initial ACGME-I accreditation in the 2010–2011 academic year, followed by Qatar and the UAE in 2013–2014. Although other countries in Asia, Central America, and the Middle East have since attained ACGME-I accreditation, we selected these countries because they were the first international locations to successfully adopt ACGME-I standards and have the longest experience with competency-based medical education.

Education in these international programs models US training structure, with similar PD roles and expectations, but required significant adaptation to local contexts. PDs were purposively nominated by study investigators (S.A., H.I., D.S.) working in each country, and contacted via phone or email. Using a snowball sampling method, additional PDs were recruited. We sought participant diversity in terms of gender, geography (Singapore vs Middle East), specialty, and tenure as PD (current vs former). Participants were either the first or second to hold

Objectives

To explore through a qualitative study the lived experiences of international residency program directors (PDs) and develop an understanding of how PDs manage educational program transformation.

Findings

PDs described distinctive patterns of navigating educational transformation: (1) embracing continuous learning and self-development; (2) managing change in the context of their local settings; (3) anticipating problems and building support networks to effectively problem-solve; (4) maintaining relationships with stakeholders for meaningful and constructive interactions; and (5) focusing on intrinsic qualities that helped them navigate challenges.

Limitations

Study findings are based on unique experiences of a group of PDs from Singapore, Qatar, and the United Arab Emirates, and may not be generalizable to educators in other settings.

Bottom Line

International PDs were presented with significant challenges in implementing educational transformation but coped successfully through distinctive patterns and methods.

the PD role. Our interviews were conducted within 8 years from initial ACGME-I accreditation in Singapore and 5 years in Qatar and the UAE. All participants provided informed consent. No compensation was provided.

This study was approved by the institutional review boards of Johns Hopkins University School of Medicine, Weill Cornell Medicine-Qatar, National University of Singapore, Massey University of New Zealand, and Tawam Human Research Ethics Committee in the UAE.

Data Collection

The interview guide was developed following a comprehensive literature review⁹ and iteratively revised by investigators (S.A., J.C., H.I., D.S.) with extensive experience in US and international medical education. The interview script was piloted for process, clarity, and comprehension on an associate PD in one of the countries studied. This interview was not included in the final analysis.

From September 2018 to July 2019, 33 participants (30 by phone and 3 in person) engaged in one-on-one, semi-structured interviews in English (guide provided as online supplementary data) by one investigator (D.D.). Audio-recorded interviews ranged from 30 to 45 minutes. Participants were asked to share accounts of their experiences as PDs, with a series of open-ended questions to elicit multiple perspectives, including challenges experienced and management strategies employed. Data collection and analysis occurred concurrently, allowing for iterative adjustments of the interview guide, and continued until

theoretical saturation was reached. Pseudonyms were used and data de-identified by assigning transcripts confidential study numbers.

Data Analysis

All interview transcripts were transcribed verbatim and checked against the recordings for accuracy. Two investigators (D.D., H.I.) independently performed a line-by-line open coding on the transcripts and initial codes were recorded. Then, thematic analysis was conducted,¹⁵ identifying recurring concepts and patterns of everyday interactions and sense-making that reflected coping strategies. Themes were categorized through constant comparison in the process of refining the categories. Discrepancies were resolved through in-depth conversations. Through consensus, the coding scheme was established and then applied to all transcripts. The codes were discussed and further refined with co-authors in monthly videoconference meetings. To enhance trustworthiness, typed transcripts were sent to 5 participants (15%) for confirmation and further input. An audit trail¹⁶ was maintained via member checks with interested participants and through a checklist of data entry and analysis with all authors. We performed all data management, coding, and analysis manually.

Team Reflexivity

Throughout the process, the team reflected on how our positions as medical educators and our experiences and relationships could influence data interpretation. To minimize individual bias, we regularly engaged in group discussion and emails to share, confirm, and challenge each other's interpretations.

Results

We interviewed 33 PDs, of whom 16 (48%) were female (TABLE 1). We identified 5 themes of how PDs managed challenges in implementing educational reform (TABLE 2).

Theme 1: Embracing Continuous Learning and Self-Development

All participants expressed that the PD role was stressful and that they initially felt underprepared. They embraced a variety of knowledge and skill-building strategies to learn and adapt, including formal medical education courses, professional development at workshops and conferences, informal learning from colleagues, and on-the-job training, often through trial and error. Participants admitted that the learning curve was steep, and unforeseen

TABLE 1

Characteristics of Program Director Participants (n = 33), 2018–2019

Characteristic	No. (%)
Country	
Singapore	16 (48)
Qatar & United Arab Emirates ^a	17 (52)
Gender	
Female	16 (48)
Male	17 (52)
Specialty	
Medical	20 (61)
Surgical	5 (15)
Hospital-based	8 (24)

^a Qatar & United Arab Emirates were combined to preserve institution anonymity.

challenges provided opportunities to refine their skills.

“To become a program director, you also become a mentor, a counselor, a coordinator. We don't formally go through training for that. Only over the years, you realize you don't really have the skills; I better go and learn how to do it well. I had a very difficult resident and I realized my counseling skills were being put to the test. So, then I said I had better go for a mentoring and coaching course that will teach me better ways in doing this. Because it was an emotional roller coaster for me as well, not only for that resident.” (No. 15)

Participants also noted how making mistakes contributed to continuous learning and self-development.

“The first year or so, running the program was difficult, because we weren't sure what we were actually doing or achieving and whether any of our plans would work out. There was a lot of planning, but we also had to be flexible to be able to keep changing things as we went along. We tried new things, we had to change some along the way [...] and we had our fair share of hiccups, mistakes and moments, but overall, we have a program where we can now see success.” (No. 24)

The desire to improve their skills inspired several participants to pursue formal degrees in health professions education.

“It's definitely a lifelong process because nothing quite prepared me for this (laughs). I didn't even know what to expect. I was like OK, I am leading a

TABLE 2

Participant Quotations Illustrating 5 Themes Related to Resilience From Interviews With Program Directors, 2018–2019

Theme	Quotations
Embracing continuous learning and self-development	“There is no course for doctors who want to be PD. You just learn through your mentors and you set into the role. You learn on the job and then you start going for development courses, like all those PD trainings.” (No. 16) “They teach you in the masters how to write an OSCE station and how to calculate the manpower, but they don’t teach you how to run or conduct your OSCE. That’s a very important thing that you need to do so you learn how to do it. It is something you learn on the job. You attend one, you see how someone organizes it and then you do it on your own.” (No. 2) “I used to go and attend the ACGME conferences every year. Every year I used to track the literature. We had [a messaging app chat] group for all the directors, so we would share our experiences, our successes, our challenges. So, it is not different than any other field of medicine, a continuous process of learning.” (No. 3)
Managing change in the context of local settings	“Well there were some requirements that we could not meet because of the cultural differences, for example, nursing home in family medicine. The requirement is that residents must rotate in a nursing home. So, we didn’t have that. To meet that requirement, we had to find some sort of alternative that we could meet it. We thought next best thing was we have patients in the hospital who were long-term patients who have been in the hospital for 6 months or more. So, we got the list from the hospital of all the long-term patients, divided it up among the residents, and over 2 years, they followed their long-term patients, which would be our equivalent to a nursing home. It worked.” (No. 2) “When we adopted the ACGME-I, you know it’s an American program, but ultimately you have to tailor it to the local setting, right? So, to begin with, our patient load is its very different from that in the US, where the residents see a limited, set number of patients and that’s it. But over here, the bed occupancy rate is over the limit. It’s always a lot of patients. So, it’s how to locally train them so that they can still get their adequate training as required and the amount of experience that they require to work here, but balanced so that it doesn’t affect their training. So, we had to balance their workload and their training needs.” (No. 16)
Anticipating problems and building support networks to effectively problem-solve	“I truly believe that the PD is only a very small part of the success of a program. Because it takes an army to manage a program. The faculty are the ones who are teaching the residents, evaluating the residents. The coordinator has a huge part to play in everyday issues, putting the evaluations together. You know there are a lot of people who work together to make a program successful. Yes, it takes lots more than just a PD—the faculty, a supportive chair for education. I owe the faculty coordinators, the nurses in the clinic and the clerks. If you have a good batch of residents, it makes you a successful PD.” (No. 2) “There was no geriatrician in our hospital. So, we had to find a military hospital that had a geriatrician and send our residents to get the training in a military hospital. We really had to figure out how to resolve these deficiencies that we had. By reaching out to the private sector or the military sector, we managed to get things done.” (No. 2) “As a family physician, you work very much in solo. You see your patient alone and there is very less opportunity to work in a team. You see your patient, you discharge your patient, and you see the next patient. As a PD, it has given me more opportunities to work with other physicians and these would be my faculty. So that’s very rewarding.” (No. 2)
Maintaining relationships with stakeholders for meaningful and constructive interactions	“I realized that a lot of PDs have difficulty in their job where there is attrition. It is because they don’t get support at the department level. So, my HOD [head of department] actually gives me a lot of autonomy and a lot of support—not just end-support, but even over-support, acknowledgement of contribution. That motivates us—public recognition and acknowledgement of your contributions.” (No. 23) “Of course, you want to succeed. You want people to get on the bandwagon and also to believe in what you are doing. It also involves trainees, other doctors who will be in faculty; also involves hospitals, management, and hospital leadership. . . So you actually want all the stakeholders to buy into this idea.” (No. 18)
Focusing on intrinsic qualities to overcome challenges	“I think I leveraged on the change at the time. I seized the opportunity and idea to change what didn’t work in the old system. Optimism and looking at the opportunity to create new things. I think at the time, it wasn’t so clear. It was ‘we have to go on and there is something good about this.’ So, let’s try and make it good.” (No. 23) “Someone who has a pastoral hat, a nurturing kind of disposition who is basically interested and believes in education and training and who actually does not calculate the time, and who has the ability to go into details, because you do need that for accreditation, otherwise your program foundation is not good.” (No. 23) “I can tell you I learned to be fair, to be strict, also to be considerate because life happens, and you have to be flexible and try to be a bit flexible with residents.” (No. 16)

Abbreviations: ACGME, Accreditation Council for Graduate Medical Education; ACGME-I, Accreditation Council for Graduate Medical Education-International; PD, program director.

program I don't know about and I learned along the way. I mean there are a lot of mistakes and then you learn from them. It's very important that we continue to learn. We continue to grow, share with other people, go to conferences and courses. But it was only towards the middle and the later parts of my term as a PD that I went on to do a Master's in education program. So, it was quite an interesting experience because when I started doing my masters, I was like hey, this is something that I knew was true, but I couldn't quite articulate it, and now I realize there is a theory to it (laughs)." (No. 21)

Most participants provided narratives of continuous learning and personal development as strategies for overcoming inexperience and achieving success.

Theme 2: Managing Change in the Context of Local Settings

Many PDs shared that this was their first leadership and change management role. They were simultaneously expected to implement a new Western-based educational model while respecting local culture and norms. Adjustment, innovation, and realignment were central to managing the expectations of all major stakeholders, through local cultural wisdom and awareness and negotiating with administrators and accreditors for change.

"There were lots of doubts at the beginning about everything we were doing. Oh this is too crazy, not for North America but for here. We were criticized right and left from everybody [...] everybody above us and everybody under us like the senior management were really not sure what we were doing was fruitful. I met with all the consultants for the first time. I was like, guys we are going to change the structure of the program. Everybody was shocked and some of them even laughed." (No. 3)

The challenges and struggles of change management also resonated with another PD:

"There was, of course, some resistance from some people who were skeptical of getting accredited from an external body and some people who were not convinced that we should adopt such competencies. And some people stated that things that work in their own countries might not be applicable in our own country because of the differences, culture differences and so on. So there were a lot of objections, but it was our role to prove that these objections were unfounded and we can make the

change for the better of the programs, the better of the education of the institute. And actually, when we implemented the changes, people could feel the difference... When we implemented the change, education was put above the service [demands] and education was having the higher kind of authority over everything else. With time, more and more people bought into the idea of change." (No. 9)

In addition, willingness to adapt to local realities by engaging with accreditors and regulators helped PDs overcome the structural and cultural barriers to implementing their programs in the local context. One participant talked about dealing with culturally sensitive issues in training, citing the example of reproductive health and, specifically, abortion training: "There were a few things which were not applicable for us, for example [pregnancy] terminations. Terminations are illegal so we don't have a section [in our curriculum] on termination. So the communication with ACGME-I would be—listen this is not applicable for us." (No. 29)

Therefore, we note in this theme how PDs managed change when adapting program accreditation requirements to their local structural, societal, and cultural contexts.

Theme 3: Anticipating and Building Support Networks to Effectively Problem-Solve

Instead of being the lone problem-solvers, all participants expected obstacles and challenges, and acknowledged the need to seek help and expertise from colleagues and institutional leaders.

"The other PDs who were there at that time, we helped each other a lot. We used to be working to 2–3AM each morning, reviewing each other's curriculum, helping each other with questions, giving each other feedback, trying to deal with each other's difficult residents. You know, we tried to work together as a group." (No. 3)

This illustrates the importance of alliance making and support building, as well as internal and external team building and collaboration.

"The other departments that were undergoing ACGME-I accreditation were so wonderful to work with. We had our pediatric department, emergency medicine, internal medicine, surgery and OB/GYN in some stage of the change process. But we were all working hard to get these programs accredited. So, we would meet with all

the other PDs and work on the program curriculum. And we would help each other, and it was a lot of fun. Sometimes I would go and give a lecture to their residents and sometimes they would come and give a lecture to our residents because everything flows... That was another part of our good day where it was collegial, and we were all working towards the same goal. It's hard for me to remember the bad things because of those moments." (No. 30)

These outreach strategies helped PDs optimize resources and build bridges with partners to implement and run successful training programs.

Theme 4: Maintaining Relationships With Stakeholders for Meaningful and Constructive Interactions

PDs discussed the importance of maintaining meaningful relationships with all relevant stakeholders, including residents, core faculty members, program coordinators, senior department and institutional leaders, patients, accreditors, and regulators. As PDs, they had to lead these maintenance efforts with effective communication to support and nurture diverse relationships. Communication strategies included regular formal and casual meetings, informal chats, or any instances which provided the PDs opportunities to interact with the stakeholders. For example, one participant shared how informal interaction, such as organizing social events, contributed to relationship building within the program.

"We go for regular meals. We even used to organize social events, like resident versus faculty bowling competition [...] very informal [...] so I think having these social events gives residents confidence that they can bring up anything with me." (No. 13)

PDs reported that maintaining these interactions helped them negotiate challenges, which otherwise would have been difficult to resolve. One participant shared the importance of support from educational and clinical leadership to resolve conflicts.

"The whole PD community was very important and the DIO [designated institutional official] is always very accessible for any questions I might have or any difficulties... We receive a lot of support. If I have problems within my own department regarding program matters, my head of the department has also been very supportive in trying to help me deal with any issues on the

ground. For instance, if I find that the residents seem particularly overworked in a particular rotation and it has to do with maybe the distribution of work or the way the particular subspecialty is being run, I bring this up to my head of department to look into how things can be improved." (No. 31)

Relationship building and maintenance at every level with stakeholders supported communication and conflict mitigation provided the PDs with the necessary resources and motivation to optimize performance.

Theme 5: Focusing on Intrinsic Qualities to Overcome Challenges

All participants stressed the importance of, and reliance on, intrinsic qualities which helped them overcome adversity. Qualities included commitment to the residents and the program, enthusiasm, perseverance, and flexibility. Identifying and strengthening these attributes helped them manage hardships. For example, one PD, who had inherited a complex environment and a difficult program, knew that streamlining the program would not be easy. He noted the importance of maintaining a positive attitude and a vision.

"So I took it as a challenge. I knew that the ride is going to be rocky. So, it eventually comes down to your attitude and how you perceive yourself. As long as I was able to tell them [the residents] this is my vision for the program, and this is how I aim to teach you guys how to do well in this particular program." (No. 33)

Strong interpersonal skills were considered essential by many of the participants. One PD noted:

"It is really how you interact with people, how you read signals, how you are able to respond in a way that can get things done, and only then can there be effective change." (No. 10)

PDs also commented on being kind to faculty and residents:

"I think the importance of being kind. You know as a PD, when you are kind to the people you work with, you get the cooperation back. For example, the faculty will be more likely to sacrifice a lot of their personal time to do things outside working hours to help you out because you are kind with them." (No. 16)

“Residents are less likely to have professionalism issues because you are kind to them and they want to be good to you back. I know it seems like something very simple, but just being kind as a PD gets you a long way.” (No. 18)

Participants were cognizant that their personal traits and attitudes were important determinants of building social capital and for their success as PDs.

Discussion

This study of lived experiences examined how PDs in international postgraduate training programs overcame challenges in the transition to competency-based medical education. We found that continuous learning, willingness to make adjustments, reaching out to program stakeholders, building meaningful networks, being relationship-focused, and identifying intrinsic qualities are critical strategies for PDs as they negotiate structural, cultural, and personal barriers to engage in meaningful and successful program implementation.

PDs in our study frequently noted the power of connectedness, to their institution and to their colleagues, as an important factor in their professional lives. Other studies have highlighted the importance of positive interpersonal relationships to the PD role. In a survey of Canadian physicians, feeling valued by colleagues contributed greatly to job satisfaction.¹⁷ A study of emergency medicine PDs found that those who had mentors were more likely to remain in their positions.¹⁸ Accordingly, sharing a sense of mission and belonging to a community of educators were strongly valued by the PDs in our study. The development of international PD specialty societies may provide additional opportunities for collegiality and networking and may further improve career satisfaction.

The commitment to continuing professional development is notable, particularly as some of the more senior PDs sought formal degrees in education. The administrative and leadership skills of PDs are unique and can take several years to master.¹⁶ Studies, however, have shown that PDs in the United States view the role as a mid-level position and are prepared to leave the job for better administrative opportunities.¹⁶ The investment in further education and professional development among the PD participants in our study may reflect a higher status of the PD role in international academic medicine. Longitudinal studies of international PDs are needed to determine if the role offers long-term career satisfaction, or merely serves as a stepping-stone for promotion to more prestigious positions.

We are encouraged that the PDs who were interviewed reflected positively on their roles, even though all admitted that the role was challenging and there was a steep learning curve. This conflicts with the high PD attrition rates observed in these countries,⁴ and this study provides potential strategies for PD retention. To foster continuous learning and self-improvement, academic institutions can offer mentoring opportunities for PDs, along with professional development programs in educational leadership, focusing on communication skills, networking, and negotiation techniques. In addition, PDs can be taught how to best invest in building and maintaining relationships with all stakeholders by holding regular meetings and using both formal and informal communication channels. In addition, recognizing and developing their intrinsic qualities and attitudes can help PDs achieve success in managing their roles. Other interventions to support PD success may include cultural competence training to help manage and negotiate regulatory standards that may not adhere to local norms or customs.

Our study has some limitations. It is based on unique experiences of a group of PDs from Singapore, Qatar, and the UAE, and may not be generalizable to educators in other settings. There may be cultural differences between these countries that affect how PDs viewed their experiences. Our sample size may have been too small to detect differences based on PD specialty or prior experiences. Our surgical population was particularly small. Also, as PDs primarily focused on positive aspects of their tenure, there may be recall bias, particularly among the former PDs. Despite such limitations, our study offers a unique and important glimpse into the lived experiences of PDs implementing successful educational program reform in an international context.

Conclusions

International PDs were able to share their experiences of overcoming challenges and barriers to successfully implement and maintain educational transformation.

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