Barriers and Facilitators to Emergency Medicine Residency Program Development in Latin America and The Caribbean

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Objectives

- Understand the barriers and facilitators of developing an Emergency Medicine (EM) residency program within Latin American and Caribbean countries.
- Disseminate the "lessons learned" to guide Honduras and other countries seeking to establish EM training programs.

Background

- EM is rapidly growing in Central America. Within the last two decades, Nicaragua, Guatemala, and Costa Rica have initiated EM residency programs.
- There has been no formal evaluation of the implementation of these recently established EM training programs to guide the process of implementation in other countries.
- Honduras currently lacks the specialty of EM and is invested in developing their own EM residency program. The impact of the COVID-19 pandemic has further increased the urgency to establish EM within the country.

Methods

- **Study Design:** Qualitative study using virtual, semi-structured individual interviews with key stakeholders involved in the implementation of EM training programs.
- **Participants**: identified via snowball sampling, leveraging initial contacts through members of the American College of Emergency Physician (ACEP) International Ambassador program, Asociación Nicaragüense de Medicina de Emergencia (ANME), and Federación Latinoamérica de Medicine de Emergencias (FLAME).
- **Process:** interviews followed a preconstructed interview guide and were conducted in either English or Spanish, recorded, transcribed and checked for accuracy.
- **Coding and Analysis**: A subset of interviews were team-coded to establish code book, and analysis followed the Consolidated Framework for Implementation Research (CFIR) to allow for identification of barriers and facilitators within five major categories of novel program implementation: inner setting, outer setting, individuals involved, implementation process, and intervention characteristics. Data was analyzed via Atlas.ti Cloud.

Results

Inner Setting

Barriers	Facilitators
• Lack of EM-trained physicians in faculty • Resistance from other specialties • Lack of acceptance or support from other specialties, hospital administration, government organizations • Feelings of isolation	• Formation of national EM associations • Graduated residents transition to faculty, leading to local EM physician teachers • Modeling curriculum after North American/U.S. educational models

"A lack of emergency doctors. It's that easy. It's that simple. You're learning a specialty, but you don't have specialists to train you. Yeah, imagine learning cardiology from an orthopedic doctor. "

"There are always local adaptations, it is impossible for it to be the same because the culture is different from Latin America and also with this internal resistance, but it was gradually adjusted according to need."

Outer Setting

Barriers	Facilitators
• Lack of support and autonomy from the university or government, such as the Ministry of Health • Public lacks knowledge on EM specialty	• COVID-19 pandemic has brought legitimacy to EM specialists • Patient needs within the country demonstrated the urgency for the creation of the specialty • Financial and education assistance from outside organizations and foreign entities, such as Partners in Health, EMRAP, Spain, the United States

"I believe that the main problem currently is of a political decision nature. We are experiencing a very particular situation that, at the moment, there is no opening, because it is a well-closed space, decisions come from above and there is no way, there is no openness. Even the university has been deprived of space, autonomy in decision-making and it is a serious problem."

"We've already met with the hospital directors, they're so hungry for emergency doctors, they recognize the value 100%"

Individuals Involved

Barriers	Facilitators
• Language barrier between foreign faculty aiding in implementing the program • Physicians from other departments doubt the stability of the EM specialty and attempt to discourage or lure the residents away from EM	• Key "champions" have a crucial role in the advocacy and initiation of EM residency programs • Successful residents are highly motivated and find creative ways to obtain training and knowledge

"…the teaching coordinator who was an internist invited us when we just began to move to the specialty, he wanted us to move on to the specialty of internal medicine, because he told us that this new specialty was not going to work, that it did not have solidity, bases, that we were going to walk from the "*timbo to the tambo*".

"…without yet having the approval of the University […], [he] talked with the authorities of the Ministry of Health and the University to open up this new career that would have the support or endorsement of the University."

Implementation Process

Barriers	Facilitators
• Lack of approval or accreditation when program is initiated • Difficult to recruit applicants and engage teachers when there is limited awareness and knowledge on the EM specialty • Limited resources and shortage of functional equipment	• Recognition from Ministry of Health for accreditation • The "grandfathering" process for very first EM physicians to help build local EM faculty • Implementing format for reflection and evaluation from residents for program improvement

"Look the biggest challenge, I think, was for them to accept us as a specialist, because we were about to start 3 years without having an approval from the university or government. And in the end we succeeded."

"So we have a WhatsApp group and we share cases and knowledge and articles etc. […] we've been doing yearly interviews with the residents, okay, so they evaluate the program. While at the same time, it gives us a chance to me […] to remain involved and also to give them feedback"

Intervention Characteristics

Barriers	Facilitators
• Limited access to literature, with additional language barrier with those available resources • Providing the residents a sufficient salary, or sometimes any salary, was difficult for the new programs	• Funding from government or foreign/private entity for residents' salary and emergency department equipment • Setting specific objectives for non-EM teaching faculty to allow for EM-specific training of residents

"Residency for us means that we, we stay and we live in a hospital, right? So we don't have to pay for rent or anything like that neither for food they will give us food twice a day, like in the morning and in the afternoon, again, and then we will stay in a residence close to the hospital […] So that was it. And then every month we will get a stipends you know from other things that probably we will need."

"We wrote, we call them a*signaturas*. So when you rotate in anesthesia, then you bring your *asignatura* and that includes the objectives for the rotation and the contents and the evaluation methods. So how will other specialists that they don't really know what an emergency medicine doctor needs to learn in that month, […] so they know the contents, they know the areas that they need to evaluate our residents in."

Current National EM Residency Program Demographics

Country	Number of interviews conducted	Number of residents in each class	Number of graduated EM physicians nationwide	Number of residency programs nationwide	Number of national associations
Nicaragua	4	3	160	1	1
Guatemala	1	4	First class will graduate in 2022	2	1
Chile	1	50	500	3	1
Mexico	1	Data unavailable	1300*	27*	2
Argentina	1	Data unavailable	600	35[1]	2
Haiti	2	7	15-20	1	0

* Data from 2010

Conclusions

- Common themes identified for the development of new EM residency programs include:
  - Absence of a stable, EM-trained faculty at the onset of a new training program is detrimental to the education of the residents.
  - Language appropriate resources, include literature, textbooks, and even teachers, is fundamental.
  - Importance of social and financial support from the government and external organizations as a catalyst for EM training program growth.
  - Need for public awareness and knowledge of the specialty and its importance in the healthcare system in order to engage the appropriate teachers and applicants.

Limitations

- A limited number of interviews have been conducted.
- Participant identification via snowball sampling leads to bias towards interviewing those with already established international connections.
- Interview team is only able to conduct interviews in English or Spanish, limiting the participants we are able to reach and communicate with.

References

1. Explore an Interactive Map of EM Development. https://www.acep.org/intl/ambassador-program/explore-an-interactive-map-of-em-development/