



Teaching residents to teach: The feasibility of a resident-led medical education development programme (ZENITH programme)

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Introduction

Residents have many teaching responsibilities. In addition to teaching medical students, junior residents and peers, residents will eventually graduate to become faculty members and take on additional teaching responsibilities. Hence, it is increasingly recognized that teaching residents to teach is a crucial part of graduate medical education. A resident-led medical education development program (ZENITH) was introduced in 2018 in the Singhealth Internal Medicine (IM) Residency Program. This consisted of a general track and an advanced track. The general track included a mandatory workshop on teaching skills for all residents. The advanced track was open to residents who were interested in pursuing a career in medical education. We describe a feasibility study of the advanced track of this resident-led medical education development program.

Methods

Learning Goals and Objectives

- To develop residents to be excellent clinician educators
- To improve the standards of medical education within Singhealth
- To make Singhealth an attractive place for trainees and medical students
- To build a culture of teaching within Singhealth
- Specific learning objectives can be found at: <https://tinyurl.com/zenithcurriculum>

Program conceptualization and implementation

IM residents conceptualized and implemented the program with the guidance of faculty mentors. The program was a joint initiative by the IM residency program and Medicine Academic Clinical Program (ACP) education oversight committee.

Needs Analysis

A needs analysis was performed at the start of the program to find out what were the participants' learning gaps and what they were interested to learn.

Residents sign-up and participation

Singhealth IM residents who were interested in medical education and serving within an existing residency education committee were given the opportunity to sign-up for the ZENITH program. Individuals were shortlisted by the program director if they had satisfactory performance in their clinical work and achieved the required residency requirements. A total of 10 residents signed up and were shortlisted for the program.



Participants attending ESME together.

Workshop series

Relevant and suitable workshops from Singhealth and non-Singhealth institutes were selected based on the needs analysis. At least one workshop from a non-Singhealth institution was chosen to allow for residents to learn from other clusters and to provide cross-cluster networking opportunities. Workshops selected within Singhealth included courses provided by the Academic Medicine Education Institute (AMEI) such as Online Essentials in Clinical Education, Face-to-Face Essentials in Clinical Education and Planning a Learning Module. Workshops selected from non-Singhealth institutes included the Essentials in Medical Education (ESME) course provided at the Asia Pacific Medical Education Conference. The participants were encouraged to attend any other courses that interest them.

Portfolio

Participants were taught how to start and maintain an education portfolio based on principles taught in the Online Essentials in Clinical Education. The format was standardized with the format used by the Medicine Academic Clinical Program (ACP) faculty development committee.

Education Portfolio		
Name:		
Designation:		
Year of training:		
Date of update:		
1.1 Statement of education philosophy		
(Use guiding questions below)		
1.2 Five Year Goals as an Educator		
1.		
2.		
3.		
2. Description of Education Activities		
2.1 Course attended		
Date	Course	Learning outcomes
2.2 Conferences attended		
Date	Course	Learning outcomes

Mentorship

Consultants who are actively involved in medical education were invited to be a part of the program as mentors. Participants were paired up with mentors who had an interest in education in a 2:1 ratio (participant:mentor). Pairings were based on the following criteria (in order of decreasing priority): (1) Whether mentors and participants were working on the same education initiative, (2) Participants' preferences.

Mentors and participants were briefed about the requirements of the program, roles and responsibilities of the mentors and participants. They were encouraged to discuss about the participant's portfolio, reflective essay, feedback from live observation of teaching, and the education initiative the participant was planning and executing.

Quarterly Discussion

All participants and mentors attended a 3-monthly meet-up where participants and mentors discussed a medical education topic of interest and updated one another on their progress in the program.



Mentors and participants come together to learn from one another at the quarterly discussions.

Reflective Essay

Participants were required to write a 500-word reflective essay on what they have learned through the program with regards to (1) teaching styles and methods, (2) planning and executive learning activities. They were encouraged to share their reflections with their mentors.

Live observation of teaching

Participants were required to collect feedback from 3 learners they had taught and to reflect on the feedback to improve their teaching skills. They were also encouraged to ask fellow participants and their mentors to observe their teaching sessions (bedside, lectures or tutorials) and to provide feedback after.

Planning and execution of learning activities

Our participants were all involved in the planning and execution of the following IM residency education initiatives: Project INSPIRE (medical student teaching), Project HOPE (house officer teaching), CADENCE (postgraduate teaching). They applied the principles learned during the program to design and implement a lesson plan under the supervision of their program mentors. Post-activity reflections were performed and suggestions for improvement were shared with all participants and mentors at one of the quarterly discussion.

Progress and Feedback

All participants completed the Online Essentials in Clinical Education and ESME course. Seven completed the Face-to-Face Essentials in Clinical Education and Planning a Learning Module. Attendance for the quarterly discussion varied from 80 – 90%. Participants found the program useful to their development as medical educators. A post-pilot program reflection to review the feedback given by mentors and participants was performed and the modifications to the program included:

Feedback	Modification to program
The program was too packed	Program will be extended to 1 year from 6 months
Not enough emphasis on teaching skills	To add a bedside teaching module to curriculum To incorporate live observation of teaching sessions a part of the course requirements (optional currently)
The ESME program was intensive and may not be a suitable course to start with	To move Online and Face-to-Face Essentials of Clinical Education before the ESME program

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