Community-based medical education: To each, his own

Niraj Mohan[1], Yi Yan Chia[2], Wen Kai Wong[3]

Corresponding author: Mr Niraj Mohan nirajmohan@u.nus.edu
Institution: 1. Yong Loo Lin School of Medicine, National University of Singapore, 2. Yong Loo Lin School of Medicine, National University of Singapore, 3. Yong Loo Lin School of Medicine, National University of Singapore
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Abstract

Community-based medical education plays an important part of medical education as learning occurs outside of the four-walled classroom, and exposure to real-life medicine is given. In Singapore, our medical education is progressively geared towards the incorporation of community-based medical education as part of our curriculum, albeit most of the programmes being voluntary. This is an article detailing the experiences of three Singaporean medical students’ experiences with three different forms of community-based medical education.

Keywords: Community-based medical education, medical student, holistic learning

Introduction

Community-based medical education comes in many shapes and sizes, and each experience tends to be a unique one for the individual. This article aims to highlight experiences of three medical students from Singapore, a modern metropolis with first-world healthcare, and their varied encounters with community-based medical education.

Case 1

I was in my first year of medical school. Armed with a bundle of enthusiasm but little medical knowledge, I ventured out to a rural hospital housed within the rustic and mythical mountains of India, along with a few medically-trained doctors. Being placed in a rural setting, I had to make do with cold water for bathing purposes, and experienced living in pitch darkness for several hours a day in view of power saving. Despite these difficulties, seeing the pearly eyed children running around in glee wearing tattered clothes, taught me my first of many lessons to come whilst
there, that joy does not equate to material wealth and that one can be contented with life even with minimal resources. This lesson served as a true beacon of inspiration in the years of medical school that passed by whenever I was dispirited and jaded.

Medically, I was simply awestruck. Opportunities were bountiful and even simple procedures such as the measurement of blood pressure, venipuncture and bandaging were exciting for me. It was also the setting where I watched my first surgery: an open cholecystectomy performed under local anesthesia. Live childbirths, lumps and bumps and the myriad of cases I was exposed to in that two weeks was amazing. The surgeons were kind enough to brief me on the surgeries and outline the surgical procedures in a piecemeal fashion that ensured that I was able to follow the procedures, despite my limited knowledge. That left an impression on me and looking back, I would say that was the seed where my interest in surgery was planted.

All in all, it was nothing short of a rich blessing to have had this experience in my formative years of my career.

Case 2

I was in my second year of medical school. Being in my pre-clinical years and being slightly jaded from having to memorize the cranial nerves and their pathways, I was intrigued by a clinic led by medical students that was being run for foreign workers at their dormitories in Singapore. Hoping to have some exposure to clinical medicine, I decided to volunteer at the clinic.

Despite having rather "selfish" goals with little consideration for the social aspect of the project of reaching out to this less-known and thought of beneficiary group, my attitudes changed from the very first session itself. A clinic located in the centre of a sprawling bee hive of dormitories, I had the opportunity to visit their accommodation. With more than 18 individuals sharing a room, it was clear that living conditions were not ideal. They came into the clinic with a wide array of clinical conditions but what I gained a lot more from was their individual stories. One was a university graduate but had to come to Singapore and do manual labour to support his family back home. Another was a father who misses his two daughters every day. A third shared how he had turned to smoking as a means to get over his loneliness since coming to work in this country. Each of them had a different story and it was an eye-opener for me, which made me appreciate the true meaning of the age-old adage of treating the patient and not the disease.

The art of empathy is a key aspect to be integrated into the science of medicine for the holistic treatment of a patient and that would have been the single most important take-away for myself from this experience.

Case 3

I was in my third year of medical school, and by that point had been a first aider for almost ten years. I understood that Singapore had a less than optimal out-of-hospital cardiac arrest (OHCA) survival rates, and wanted to be a part of the solution. With the help of fellow medical students and first aiders, we spoke to various stakeholders in the first aid education field and did a literature review on the topic to better understand the problem.

We came to the conclusion that while current first aid courses in Singapore fared excellently in delivering theoretical knowledge and psychomotor skills, it did not address the motivational aspects of driving people to maintain those skills and utilize them in a real-life, stressful scenario. To remedy this, my team used gamification (game design elements used in non-gaming scenarios) to design a 3-hour long, free-of-charge course intended to serve as a simple
introduction course to laypersons. The goal of the course was to help people pick up basic first aid skills together with friends and family in a fun, exciting environment. The team conducted a scientific study of the effectiveness of the course, and presented the findings at two local conferences.

The opportunity to really dive into a healthcare topic with the intention to solve it on a systemic level gave my team and myself an invaluable opportunity to appreciate the social, economic, and political dimensions. Not only were we able to better appreciate the scientific rationale behind certain basic actions (for example, why quality chest compressions must be deep, fast, and fully released), we were also shown the dynamism of medical knowledge and how important it is to keep up with the latest literature. When the time came for me to see a heart attack patient wheeled off the ambulance door into the Emergency Department, and for me to start cardiopulmonary resuscitation and defibrillation, my community based medical education gave me an understanding my textbooks never would have.

Discussion

The three cases presented here reflect three different scenarios in which medical students experienced community based medical education. The first was an experience in an overseas medical community service project in a rural context. The second case was a local medical community service project in a first-world country, aimed at providing medical care to a distinct beneficiary group. The third case was a large-scale community outreach initiative aimed at spreading awareness of first aid to the wider public.

Walters et al [1] explored the key value of apprenticeship in the pursuit of medical knowledge and skills. He concluded that through community based medical education, the student is placed into close proximity with his or her teachers, and a better bond between the two parties is forged, and students find it easier to emulate after their teachers in terms of clinical competency and the soft skills of medicine such as developing better communication skills with their patients. The student in Case 1 clearly appreciated learning from her mentors who ignited her passion for surgery and the love for medicine within a short span of fourteen days of overseas community immersion trip.

Community-based medical learning through student-led clinics has been proven effective in terms of improving clinical skills and communicative skills with a better appreciation of the patient as an individual [2]. In Singapore, as reflected in the experiences of the student in Case 2, he was given an opportunity to serve the immigrant workers of Singapore who could not afford healthcare as easily as Singaporeans. Through the process, he was able get into their hearts, hear their unexpressed sorrows and feelings working in a foreign land far away from home, and heal them not only physically but also spiritually, reminding us of the aphorism: "To cure sometimes, to relieve often, to comfort always".

It has been recognized that public health and preventive medicine, empowerment of communities and honing leadership skills should be accepted as part and parcel of community-based medical education [3]. The trinity of public health, empowerment of communities and student leadership are exemplified in Case 3 where a large-scale public event aimed at teaching essential principles of first aid to the community at large is facilitated through the leadership of many medical students involved in the planning and executing of the event. First aid skills are needful in this day and age, and are not limited to cardiopulmonary resuscitation and learning how to use an automatic external defibrillator, but also include learning how to stop nose bleeds or even heavy bleedings from arterial sources, and learning the Heimlich maneuver to help someone who is choking. First aid skills are essential skills to possess, and through a large-scale public event, local communities are empowered and enabled to make real
differences in the lives of other people when armed with these skills. In turn, the student in Case 3 alongside many of his other student leaders are personally empowered in terms of leadership skills, being part of the organizing committee of this large-scale public event. Also, these medical students play the role of teachers to the participants of this large-scale public event, passing down their knowledge of first aid skills to the general public. A culture of teaching and apprenticeship is further reinforced and cultivated amongst medical students.

When learning occurs outside of classroom, as in the case of community-based medical education, the students are exposed to how real-life medicine is practiced, and each individual undergoes a more personal learning process intertwined with enriching experiences that help in each individual’s personal growth and development [4]. This is illustrated in all three aforementioned cases, and their learning is not limited to purely academic work, but also in terms of appreciation of life as reflected in Case 1, learning to sympathize with underserved communities in Singapore as reflected in Case 2. Finally, community-based medical education gives an individual the opportunity to learn how to become an effective student leader, by getting one’s hands dirty in the arduous process of leading and initiating projects within the local communities. Thus, it could be seen that community-based medical education helps individuals develop holistically, and a holistic individual, in turn, becomes a better doctor equipped to solve problems of the real world.

Take Home Messages

Notes On Contributors

All three authors are final year medical students from Yong Loo Lin School of Medicine, National University of Singapore.

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Appendices

Declaration of Interest

The author has declared that there are no conflicts of interest.