Chapter 16
Challenges in Pharmacy Education With Limited Resources During COVID-19: ASEAN Perspective

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ABSTRACT

The rapidly emerging COVID-19 pandemic resulted in the need for rapid and extensive changes in the education programs of universities. This chapter reviews the changes in teaching and learning made by pharmaceutical faculties in six universities located in the Association of Southeast Asian Nations (ASEAN): Mahasarakham University (Thailand), Taylor's University (Malaysia), University of the Philippines-Manilla (Philippines), Hai Phong University of Medicine and Pharmacy (Vietnam), University of Health Sciences (Lao PDR), and Sanata Dharma University (Indonesia). The authors discuss adjustments that were made based on educational contexts, planning and infrastructure, educational processes, and products and outcomes. Each university provides a specific story concerning lessons learned in responding to the pandemic. The chapter concludes with changes that will be employed in future emergency situations, as well as those that will continue to be incorporated with the resumption of normal operations.

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INTRODUCTION

Situations that Impacted Educational Organization

The coronavirus (COVID-19) pandemic tremendously impacted health worldwide. On March 11, 2020, the World Health Organization (WHO) declared the global outbreak a pandemic. Universities in the Association of Southeast Asian Nations (ASEAN) responded by promptly taking actions to slow the contagion and change educational processes depending on governmental polices and specific adaptations to individual situations. Since WHO recommended social distancing as one of the critical strategies to reduce the spread of COVID-19, pharmacy schools needed to be closed to adhere to this measure and remote teaching was required to maintain learning experiences and provide education for all students. The experiences of universities located in six ASEAN countries of varying populations, geography and COVID-19 incidences are discussed in this chapter: Taylor's University (TU), Malaysia; Mahasarakham University (MSU), Thailand; University of the Philippines Manila (UPM), Philippines; Sanata Dharma University (SDU), Indonesia; University of Health Sciences (UHS), Lao PDR; and Hai Phong University of Medicine and Pharmacy (HPMU), Vietnam. Characteristics of the six schools of pharmacy are shown in Table 1.

BACKGROUND

Challenges of Traditional Methods of Teaching during COVID-19

The teaching styles vary among pharmacy schools in the six universities. The most typical style is in-class face-to-face teaching in classes varying from 30 to 120 students. Face-to-face teaching is clearly a teacher-centered method but, with limited resources in ASEAN contexts, this traditional method is most used. However, various pharmacy schools do employ active learning approaches. At HPMU, active teaching/learning processes include allocating more class time for questions and answers, providing students pre-class assignments necessary for them to answer questions in class, and use of role playing. Some faculty members use digital technologies such as Kahoot! (2021) (a game- based learning platform) and flipped classrooms to facilitate student engagement during face-to-face classroom sessions.

In general, it is necessary to introduce clinical skills in laboratory activities before clinical practice experiences. The six schools use various active learning activities including case-based discussions, problem-based learning (PBL), team-based learning (TBL), clinical case presentations, reporting, group activities, fishbowls, simulated and standardized patients, actual/simulated chart review and monitoring, and actual/simulated patient counseling in varying combinations. Generally, small groups (6-7 students) have been used in laboratories to allow students to interact with teachers in the class and receive feedback. For example, Powell et al. (2019) demonstrated that small-group active learning made students more proficient in understanding and applying core concepts.

Activities in science laboratories are necessary for pharmacy students to develop skills for using equipment for compounding and quality control. Therefore, all pharmacy schools must provide such courses for students to practice achieving professional competency. Combinations of traditional and active learning are also implemented in science labs. Laboratory sizes vary from 8 to 60 students in the various schools based on laboratory capacities.