

## LETTERS

### Pharmacy Education in Yemen

*To the Editor.* I appreciated the letter entitled “Pharmacy Education and Practice in 13 Middle Eastern Countries.”<sup>1</sup> As acknowledged by the author of this valuable article, the data obtained may not have been peer reviewed. So in this letter I would like to clarify, correct, and update the information related to pharmacy education in Yemen. Kheir and colleagues stated that there were 2 public pharmacy schools and 2 private schools in Yemen.<sup>1</sup> Actually, there are 4 public and 12 private colleges of pharmacy. Only 4 public colleges and 3 private colleges are recognized.<sup>2</sup> The first public pharmacy faculty (college) was established in 1987 in Sana’a. It was first a department in the Faculty of Medicine and Health Sciences, University of Sana’a. The first class of 40 students graduated in 1993. It became a separate faculty in 2002. The faculty of pharmacy offers a bachelor degree as well as master’s degree in Pharmacology, Pharmaceutics, and Pharmacognosy. The graduated students also can pursue a master’s degree or PhD in pharmacology and public health under the supervision of the Faculty of Medicine and Health Sciences.<sup>3</sup>

The second public pharmacy college was established in 1995 in Aden. It was first a department in the Faculty of Medicine and Health Sciences, University of Aden. It became a separate college in June 2009.<sup>4</sup> The third public pharmacy faculty (college) was established in 2005 in Tamar as a department in the Faculty of Medicine and Health Sciences, University of Tamar.<sup>5</sup> The fourth public pharmacy faculty (college) was established in 2011 in Hodeidah University. It is as a department of Clinical Pharmacy in the Faculty of Medical Sciences. It offers 2 programs: pharmacy and the doctor of pharmacy (PharmD).<sup>6</sup> The 3 private colleges of pharmacy offer a diploma of pharmacy as well as a bachelor’s degree in pharmacy. The University of Science and Technology established the first private college of pharmacy as a department within the College of Medical sciences. It offers a diploma of pharmacy and bachelor of pharmacy. In 2010-2011 the College of Pharmacy, University of Science and Technology started a PharmD program.<sup>7</sup> The duration of a bachelor’s degree program in all public and private colleges is 5 years. The program is taught in English, with Arabic language used in a few courses such as Arabic and Islamic subjects. Kheir and colleagues stated that there were more female students than male students enrolled in pharmacy programs.<sup>1</sup> However, the Central Statistics Organization in Yemen reported that the number of male students was greater than the number of female students enrolled in public and private pharmacy colleges and schools. The

percentage of male students is about 70% of the total students.<sup>8-13</sup> Kheir and colleagues stated that the number of students admitted yearly is 200 to 250 students.<sup>1</sup> The number of pharmacy students in the recognized public and private pharmacy colleges and schools in Yemen is actually more than 500 students.<sup>11-13</sup> Kheir and colleagues stated that the number pharmacists (density/1000) was 2,638 (0.1). There are no official numbers about the total number of pharmacists in Yemen. As the only official numbers as the Ministry of Public Health and Population mentioned is the number of pharmacists that registered in the Ministry.<sup>14</sup> The estimated number of registered pharmacists in Yemen is above 4,000 according to the Yemen Pharmacists Syndicate (2010), and they mentioned that this is not the actual total number of pharmacists because there are about 1,000 pharmacists graduating each year from the Yemeni universities and other countries and that are not registered in the Syndicate. They are working outside Yemen in the Kingdom of Saudi Arabia, Emirates, and other countries for many reasons, such as a lack of jobs and low salaries in Yemen and more attractive work environments outside Yemen.<sup>15</sup> Kheir and colleagues stated that the number of credit hours required for the bachelor’s degree ranges from 155 to 179, and that there is a 0 to 2 years prepharmacy program and a 3-5 year professional program.<sup>1</sup> Actually, according to the universities’ Web sites, the credit hours are 174 to 190, there is no prepharmacy years required for public and private colleges, and the duration of study is 5 years.<sup>2-7</sup> Kheir and colleagues stated that “Yemen has over 2,250 pharmacies, and while over 450 hospitals and clinics.” In 2008, there are 2,681 pharmacies and 2,123 drug stores. This number increased in 2011 to 3,315 pharmacies and 4,133 drug stores. The total numbers of small hospitals and clinics in Yemen in 2008 are 3,850 public and 3,736 private.<sup>14,16</sup>

Yaser Mohammed Al-Worafi, PhD

Department of Pharmacy Practice and Clinical Pharmacy,  
Qassim University  
Buraidah, Saudi Arabia

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