

### Do We Need Sub Specialization in Medicine?

*Prof. Hadi Al Khalili  
Emeritus Professor and Former Head of  
Neurosurgery, Baghdad University*

Over the recent decades, we have seen an explosion in scientific knowledge, and medical technology has made it difficult for individuals to keep up with the current advancement. This explosion has established the need for sub specialization.

Historically, the practice of medicine went through historical phases. In Mesopotamia, there were two types of doctors: Asu, the scientific doctor, and Asipu, the temple healer. Both were treating people, dentists, and veterinarians.<sup>(1)</sup> Egyptian medicine was as advanced with some specialization.<sup>(2)</sup>

In the code of Hammurabi (1772 BC), there was a referral to doctors who treat diseases; others do surgery and an eye doctor.<sup>(3)</sup> Greek medicine, then Arab Islamic medicine, some doctors treat internal disease, eye specialists, and surgeons.<sup>(4,5,6)</sup>

In the nineteenth century, the start of medical specialization started. Hence there was the surgeon, internist, gyn/obstetrician, ophthalmologist, otolaryngologist, orthopedic surgeon, anesthetist, and so on.<sup>(7)</sup>

Early in the twentieth century, subspecialties evolved modestly. A clear example is the surgical titled "Practice of Surgery," published in America in 12 volumes in 1931 and edited by Dr. Dean Lewis. Its twelfth volume, 1932, was written by a neurosurgeon, spinal surgeon, vascular surgeon, and others.<sup>(8)</sup>

Subspecialties in major medical lines were established first in America and Western Europe. In 1960, there were only 18 specialty boards and a handful of subspecialties in the United States, but by 2011 there were 158 specialties and subspecialties. Canada has 67 specialties and subspecialties; France 52; and England 97<sup>(9)</sup>. In 2021 there are 20 primary specialties in America with around 165 subspecialties.<sup>(10)</sup>

The advantages of this development are many. The clinicians can concentrate on linking with experts of similar interests through journals, meetings, and networking databases. Similarly, provided a patient reaches the appropriate subspecialist, they can be sure of up-to-date skilled management by a recognized expert in a center of excellence. Also, expertise and research in the subspecialized fields will advance the knowledge and means of managing difficult and complex cases.

However, we must admit that some disadvantages of this trend are the obligatory early entry into specialist training and the inevitable decline of the generalist clinician, increasing the risks of inappropriate diagnosis and referral.<sup>(11)</sup>

In our country, the initiative for sub specialization started many years ago. It has not advocated in the eighties and nineties of the last century due to the problematic circumstances of wars and sanctions in the country was passing through. However, one of the essential examples of subspecialty achieved in that line was the establishment and success of the "Orbital Surgery Center" at the Surgical Specialties Hospital in 2002, which was part of the neurosurgical department.

The Iraqi Board of Medical Specialties and the Arab Board of Medical Specialties have successfully started training and certification in subspecialties of the major medical fields. The total number of primary medical specialties is 40, and those of subspecialties are 35.<sup>(12)</sup>

It is very satisfying to see Iraqi and Arab academic and professional medical decision-makers pursuing the target of specialization in their training programs and then reaching the stage of "knowing a lot about one thing rather than knowing some about everything."

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