

A one-day visit of the EEG and EMG/NCV departments during neurology course for medical students of Shiraz University of Medical Sciences

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Dear editor

oday, an important part of the patients' I diagnostic activities includes paraclinical tests and procedures, which follow their completed history-taking and examinations, in such a way that many medical science sources in different fields consider them to be follow-up activities of clinical examinations. This is also the case in the field of neurology and many of its specialized subfields. For example, in a patient suspected of seizure and epilepsy, an EEG not only helps to identify the real patient's problem or disease, but also to diagnose the type of the disease and contributes to decision-making on the type of the drug to use. The EMG/NCV is also necessary for patients with a possible peripheral neuropathic involvement. In most cases, paraclinical activities are performed outside the educational settings, such as in laboratories or special procedure rooms, and students, residents and learners are only informed about the results of those activities without observing how they are actually performed, so they will not learn that diagnostic method and will not gain a deep understanding of it, to the point that they may be unfamiliar with the necessity of doing that even during their practice. This leads in many cases to unnecessary requests or its postponement in essential conditions. Unfortunately, the above-mentioned problem is found among both students and residents. Moreover, we found few appropriate and useful studies in this area due to the learners' unfamiliarity with this scientific area and their lack of interest and motivation for research in this regard. For the above reasons, the educational deputy of the Neurology Department of Shiraz University of Medical Sciences decided to solve this problem through a new training course. During the above educational process, the sixth year students of medicine in Shiraz University of Medical Sciences, who are receiving training during their one-month course of neurology, were divided into groups of six to eight members, and each group, together with a resident, visited the EEG and EMG/NCV departments of Imam Reza Clinic affiliated to Shiraz University of Medical Sciences as a tour lasting for a few hours outside the clinical departments and listened to a full description from doctors, personnel and other professionals in these departments. In addition, they closely visited the patients as well as the devices used in these departments.

Investigations show that different units of medical education at Iranian universities of medical sciences have regularly been visited, but no periodical and regular visits have been performed as part of a predetermined curriculum. However, a relatively similar study conducted at Shiraz University of Medical Sciences in 2017 reported that holding a short-term (one day and a half) practical laboratory training course could significantly increase the students' experience and training (1).

Other published studies have been in the form of short-term training courses in the laboratory or pathological sciences rather than one-or-two-day visits. However, these studies are similar to our educational process in that both are held during a short term with the aim of the students' further familiarity and readiness. For example, a study was conducted on fourth-year medical students, in which a one-and-a-half-day course was designed to familiarize the students with paraclinical methods and help them gain experience in this regard. The results of this study showed that this one-day course was a great incentive for the training of some selected parts of medical education (2). Another study was carried out in 1987 on medical students, showing that the students' preliminary familiarity with the clinical stages can be very effective if these stages are held in short terms, in small groups, and with a focus on basic issues (3).

The Neurology Department of Shiraz University of Medical Sciences hopes to achieve the following goals by implementing the abovementioned training course:

- 1. Understanding of the above-mentioned processes better by attending the patients' bedside and observing the processes closely,
- 2. Familiarizing the students with the reasons for requesting each of the two above-mentioned procedures to prevent unnecessary requests during the future years of practice,
- 3. Motivating and encouraging the students to study the related subjects better and more accurately.
- 4. Encouraging the students to do research in each of the two above-mentioned areas,
- 5. Familiarizing the students with the difficulty of work and possible problems when doing the above-mentioned investigations and taking them into consideration in future years of practice, and
- 6. Familiarizing them with the personnel and using their experiences.

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