

LETTERS

1st International Training Course on Neuropsychology in Epilepsy held in Normandy, France, April 10–15, 2016

To the Editor:

Until recently, there have been no international training courses specializing in the neuropsychological assessment and treatment of people with epilepsy, despite the significant role played by clinical neuropsychologists in both routine and specialist epilepsy care around the globe. April 2016 marked the successful launch of the first summer school for specialized training in the neuropsychology of epilepsy, hosted by the International League Against Epilepsy (ILAE) Neuropsychology Task Force of the Diagnostic Methods Commission (2013–2017). The course was set in the picturesque countryside of Normandy in the Château de Rosay, situated on the edge of the Lyons Forest. The grand old world charm of the château accompanied by the delightful traditions of provincial French gastronomy created an ideal, convivial atmosphere for the delegates to engage in an intensive week of learning, to hone their skills in differential diagnosis and case formula-

tion, and advance their expertise in the neuropsychological assessment and treatment of people with epilepsy.

The content of the course built on the first set of international guidelines developed by the Neuropsychology Task Force that promote minimum standards of neuropsychological practice and training for the care of people with epilepsy.¹ Our primary goal was to facilitate a deeper understanding of the principles of diagnostic neuropsychological assessment, as they relate to varying aspects of seizure presentation and its treatment in epilepsy disorders that present across the lifespan in a range of health care settings. The psychiatric and neurobehavioral comorbidities of epilepsy were also addressed, as were broader social and cultural factors to assist translation of practice to the local setting. Our second goal was to help delegates build a social network of colleagues that will endure beyond the program and serve as an ongoing source of professional support and development. This goal was facilitated by a lively program of social activities, including team-building exercises that required delegates to solve a series of brain teasers, and a taxing epilepsy quiz night, ironically subjecting neuropsychologists to some of their own medicine! Our “epilepsy night at the movies” considered how epilepsy has been depicted on the big screen, contributing to the many social misconceptions and stigma of epilepsy,



Figure 1.

Participants of the 1st International Training Course on Neuropsychology in Epilepsy held at the Château de Rosay in Normandy, France.

Epilepsia © ILAE

and highlighting the challenges we still face in bringing epilepsy out of the shadows.

The delegates of the first neuropsychology summer school had broad international representation. A total of 34 delegates attended from 18 different countries, including resource poor regions to increase access to specialist neuropsychological training and promote guidelines for minimum standards of practice (Fig. 1; Table 1). Five of the delegates were recipients of inaugural scholarships, two of which were awarded by the International Neuropsychological Society to support attendees from resource-poor countries, whereas the remaining three were funded by the ILAE British Chapter and the Epilepsy Society of Australia (ILAE Australian Chapter) to support the career development of neuropsychologists wanting to specialize in epilepsy. The majority of delegates were early career neuropsychologists already working in a variety of community, hospital, or epilepsy-specific healthcare settings, whereas a small number were neurologists with a special interest in neuropsychology. This multidisciplinary cohort facilitated fruitful discussions of clinical issues, considered from a range of perspectives. The delegates were accompanied by a teaching faculty of eight staff, all of whom were leading clinical neuropsychologists with distinguished track records and extensive clinical experience from epilepsy programs around the world. Their expertise and access to large cohorts of epilepsy patients made them ideal teaching staff and underscored the success of the first neuropsychology summer school. This expertise was augmented by a plenary lecture delivered by Dr. Fergus Rugg Gunn, an epilepsy neuroradiologist who showcased the latest advances in structural and functional neuroimaging techniques and their cognitive applications in people with epilepsy.

All delegates took part in 5 days of lectures, case presentations, and group discussions designed to illustrate the

principles of differential diagnosis and case formulation in neuropsychological practice in epilepsy. Each day commenced with a breakfast seminar, where faculty members presented video examples of ictal semiology, focusing on the cognitive features accompanying different seizure types and highlighting the key clinical features of seizure presentation. The mornings were then filled with didactic presentations provided by faculty staff and discussion of the latest research findings and approaches to clinical practice. A broad range of topics were covered, including the psychometrics of neuropsychological tests and evidence-based practice, the cognitive profiles of new-onset and chronic epilepsy patients and their long-term outcomes, and more specialized neuropsychological issues in epilepsy surgery, pediatric, and late-onset patients. Lectures also canvassed the assessment of medication effects, psychiatric and behavioral comorbidities, intellectual disability, psychogenic nonepileptic seizures, stigma and cultural factors, as well as the delivery of neuropsychological interventions, and follow-up and rehabilitation following epilepsy surgery.

Each afternoon, delegates divided into small groups and spent time with one faculty member who first presented an epilepsy case (or themed set of cases) designed to raise

Country	Delegates
Australia	2
Austria	2
Belgium	1
Brazil	3
France	2
Germany	4
India	1
Italy	2
Portugal	2
Russia	1
Slovenia	1
Spain	1
Switzerland	3
Turkey	1
United Kingdom (England, Wales)	3
U.S.A.	4

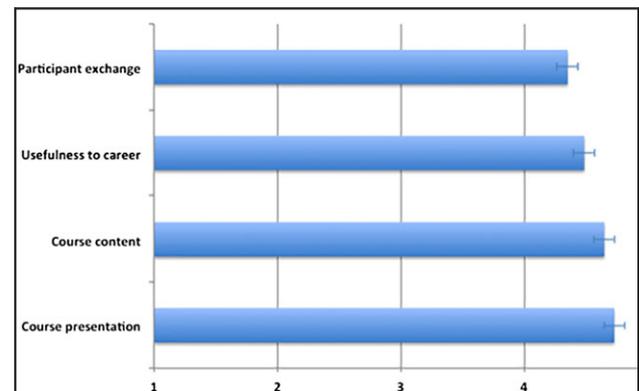


Figure 2.

Example course feedback from participants of the first neuropsychology summer school. For the first (bottom) bar labeled “Course presentation,” delegates responded to the item “The content of the course was presented: 1 = Inadequately to 5 = Extremely well.” For the second bar labeled “Course content,” delegates responded to the item “The selection of topics met my expectations: 1 = Not at all to 5 = Extremely well.” For the third bar labeled “Usefulness to career,” delegates reflected on their personal experience of the course in terms of its “Usefulness for my professional career: 1 = Not applicable to 5 = Fully reached.” For the fourth (top) bar labeled “Participant exchange,” delegates reflected on their personal experience of the course for “Exchanging learning experiences with other participants: 1 = Not applicable to 5 = Fully reached.” Error bars represent the standard error of the mean.

Epilepsia © ILAE

diagnostic dilemmas and facilitate discussion of the complexities of neuropsychological assessment and case formulation. A delegate in each group was then required to present a case that had posed clinical challenges, with each delegate presenting a case over the course of the week. This format provided intensive day-long interactions between faculty staff and delegates and enabled the faculty to assess each delegate's neuropsychological knowledge and approach to clinical practice, providing constructive feedback to advance individual and group learning. Additional formal assessments of lecture content were administered throughout the week, and each delegate was provided with a copy of all relevant teaching materials in PDF format on a memento ILAE USB. All course activities were enhanced by the excellent seminar facilities of the château, which was equipped with the latest IT systems and a highly responsive on-site support team.

The effectiveness of the course was evaluated by a detailed questionnaire, which revealed a high level of participant satisfaction. Among other things, this included strong positive feedback about the selection of topics and presentation of course content, the usefulness of the course for developing a professional career, and the value of exchanging learning experiences with other delegates (Fig. 2). Many delegates also spontaneously commented on the importance of the opportunities for networking and intercultural exchange, including the value of sharing cases and taking part in group discussions. The extent of positive feedback provides us with confidence that we achieved the goals of the course, and indicated that there is a strong demand for future summer schools that continue to advance specialist training for neuropsychologists working with people with epilepsy.

Although a second summer school has not yet been announced, we hope to organize such an event in the near future and would like to take this opportunity to sincerely thank the Executive of the ILAE, and the Chair of the Diagnostic Methods Commission, Prof Ingmar Blumcke, for their invaluable support, without which the first summer school would not have been possible.

We look forward to welcoming you at a future training course on neuropsychology in epilepsy.

DISCLOSURE

The author has no conflict of interest to declare. The 1st International Training Course on Neuropsychology in Epilepsy was financially supported by the ILAE Diagnostic Methods Commission (2013–2017), the International Neuropsychological Society (INS), the ILAE British Chapter, and the Epilepsy Society of Australia (ILAE Australian Chapter). I confirm that I have read the Journal position on issues involved in ethical publication and affirm that this report is consistent with these guidelines.

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REFERENCE

1. Wilson SJ, Baxendale S, Barr W, et al. Indications and expectations for neuropsychological assessment in routine epilepsy care: report of the ILAE Neuropsychology Task Force, Diagnostic Methods Commission, 2013–2017. *Epilepsia* 2015;56:674–681.

Gamma oscillations or spikes?

To the Editor:

Benedek et al.¹ refer throughout the report of their study to “gamma oscillations.” They studied the spatiotemporal distribution of gamma oscillations during the spike-wave discharges of idiopathic generalized epilepsy, and they discussed their role in epileptic discharges. To measure these “gamma oscillations” they performed a spectral analysis of the spike-wave discharge and examined the activity in the upper beta and gamma bands. In fact, they neither demonstrate the presence of oscillations, nor illustrate such oscillations (oscillations could be defined as repetitive variations in voltage around a central value). In all likelihood, the activity measured by spectral analysis in the beta and gamma bands reflects the spikes of the spike-wave discharges. It is mostly in these bands that the energy of the spikes is located, since their usual duration of 20–30 msec corresponds to these frequency bands. At the very least, the spikes contribute a large proportion of the beta-gamma activity (they are a very visible component of spike-waves, unlike gamma oscillations, which have not been described). Where else would the activity of the spikes fall in the frequency spectrum? The authors note the larger gamma activity at the onset of discharges compared to the end; this reflects the known prominence of spikes early in the discharge. For this reason, I do not think that the discussion of the literature on gamma oscillations is relevant here. It would be more appropriate to discuss the literature on the generation of spikes during spike-and-wave discharges. The spatiotemporal distribution of spikes during spike-and-wave discharges has been studied extensively, and these studies are not mentioned here (see for instance the reports of Lemieux and Blume²).

It is not impossible that there are also gamma oscillations during spike-wave discharges, but their presence would have to be demonstrated (maybe by showing them to be riding on the slow waves).